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MAY 1956
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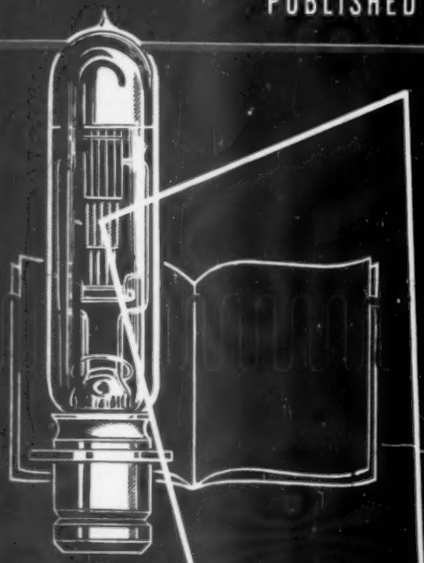

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THE *Editor's Notebook*

For Members Only

Soon after you receive this issue, you will get the ballot that decides the future title of your magazine. INSTRUCTIONAL MATERIALS will be on it, and the suggested new title, "Audio-Visual Instruction." This is in accordance with the action of your board of directors.

We urge you and every other member of DAVI to vote. How you vote is not our affair. But we are concerned that as large a percentage as possible of the members vote. Seldom have more than 50 percent of our members voted on any single issue. It would be unfortunate if the title of DAVI's official journal were decided by a minority.

For this title is likely to be with us for years to come. We cannot change titles often and expect to retain the support of our advertisers and friends among school administrators, curriculum supervisors, and other education groups.

The issues are fairly clear. They concern the scope of the publication; they deal with the relationship between the organization and its magazine; and they involve the professional relationships between DAVI and other organizations.

These are the concerns of your professional future. They will affect your job and professional trends in your field during the decade to come.

Views have been stated forthrightly on both sides of the matter—in the March-April issue and in this one (see page 83). Weigh them carefully. Then vote.

F.E.B.

NEA President Writes

I am happy to congratulate the Department of Audio-Visual Instruction of the NEA upon the launching of its new journal, INSTRUCTIONAL MATERIALS. At no time in the history of learning have the tools of education been more effectively devised and more widely and skillfully used than they are today. As knowledge of the human mind advances, still better employment of all kinds of learning facilities is possible.

Audio-visual aids have long had a recognized place among the tools of teaching. Development of the skills used in employing these aids has kept pace with the improvement in the aids themselves.

We have today in educational television a new medium of audio-visual instruction. Because of the cost of building and operating a station, the use of television for adult education and for classroom teaching will take place more slowly than the adoption of films and other audio-visual aids. However, there are already 20 educational television stations regularly broadcasting excellent programs. It is important that the Federal Communications Commission continue the reservation of television channel assignments for school and college use. It will be an important responsibility of specialists in audio-visual instruction to keep this medium continuously available, as well as to achieve a high degree of skill in its use.

—J. LESTER BUFORD
President, NEA

Defines Role of Journal

Volume I, Issue 1 of INSTRUCTIONAL MATERIALS has just arrived on my desk. I would like to extend to you and to the Department of Audio-Visual Instruction heartiest congratulations.

If the schools and colleges of this country are to meet the challenge which is before them, there seems to be no doubt but what audio-visual materials and methods must be used more advantageously. It appears that the new publication will be effective in bringing about this development.

The American Association of Colleges for Teacher Education extends its best wishes to the Department of Audio-Visual Instruction and to the new journal, INSTRUCTIONAL MATERIALS. —EDWARD C. POMEROY
Executive Secretary, AACTE

NAEB Notes Launching

The National Association of Educational Broadcasters happily notes the launching of DAVI's new professional journal, INSTRUCTIONAL MATERIALS. Only by effective utilization of educational television, radio, motion pictures, and other audio-visual aids in the hands of the educator will education meet the challenge of the modern era. This journal should make a contribution in an area where service is needed. —FRANK E. SCHOOLEY
President, NAEB

Three Handbooks

Congratulations to Wilbur Young, superintendent of public instruction in Indiana, and his committee for an outstanding contribution to the field of audio-visual methods and techniques. We have in mind their recently published booklet, *The Audio-Visual Program*, written about last month in Within DAVI Family.

Other handbooks noteworthy and recent are the Michigan yearbook, *In-Service Education in Audio-Visual Methods* (see page 92) and the Minnesota booklet *Audio-Visual Handbook*, designed to assist teachers and students operate audio-visual equipment.

About the contributors . . . Irene Cypher is associate professor of education at New York University and editor of the audio-visual supplement to *Instructor* magazine. Marjorie East is on the staff at Antioch College and co-author of *Display For Learning*. Charles F. Schuller directs the audio-visual center at Michigan State University, has written several books and edited *The School Administrator and His AV Program*. Joseph Kennedy, Joseph Duffy, and Victor Wisner are teachers, Kennedy in the Wisconsin High School at the University of Wisconsin; Duffy in the Russell Sage Junior High School, Queens, N. Y., and Wisner in Perth Amboy (New Jersey) High School.

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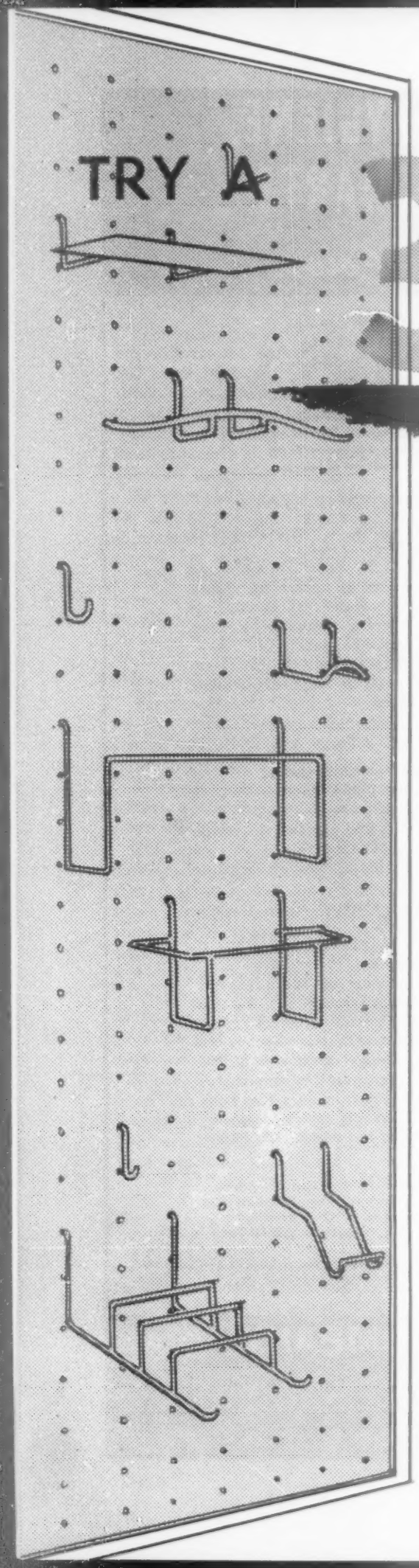


By MARJORIE EAST

3D bulletin board

DRAMATIC ARRANGEMENT and careful design will work miracles with a bulletin board display of photos, clippings, and notices. But the third dimension is even more useful. It attracts attention to flat materials, and permits small objects to be arranged in vertical display.

Fair Time in Ohio (photograph in the lower right) shows what can be done with flat materials by adding a 3-D look and a "big top" motif.

Shadows add dramatic emphasis; the various parts of the exhibit move in relationship to each other as the viewer changes position, and an appearance of life is added.

In a schoolroom display the wooden sticks shown in the Ohio example can be replaced by ribbons or wires. These can be attached to the ceiling, floor, or walls, or to a table forming part of the display.

Ribbons and wires have been used to advantage in weather displays to help students learn the name and properties of cloud formations. In one instance photographs with short descriptive paragraphs about cumulus, cirrus, and other cloud types were mounted on the bulletin board. A ribbon connected each photograph to a cotton model of its cloud type suspended from the ceiling. This is only one example. The ingenuity of pupils will suggest other ways to connect the bulletin board to "outer space."

Even simpler methods will bring the 3-D look. Pictures and cardboard letters for titles can be fastened with long pins pushed straight into the board. If you gently pull the picture out to the heads of the pins, there will be an inch or so of depth behind the picture. Square paper loops with one side attached to the picture and the opposite side to the bulletin board give the same effect. Paper pockets to hold lightweight leaflets are easily made and can be attached securely with staples or thumbtacks. Pamphlets can be hung up with a spring clip and a hook. Paper sculpture in the form of hands, faces, trees, or other objects will add emphasis.

Sets of plaster letters make effective, clear, and three-dimensional titles for bulletin board displays. However, they are expensive and breakable. Cardboard sets are more practical for schoolroom use. They may be attached with bits of tape that is sticky on both sides, either to the bulletin board or to panels or ribbons that are set out from the back panel. Titles and labels can be given an appearance of hanging in mid-air by inking or typing the letters on clear, heavy-gauge cellophane and then projecting the clear film into the space in front of the back panel.

Many small objects can be effectively displayed on a vertical plane or associated with a vertical background. The photograph of the Indian pipes at the upper right is an excellent example of good display techniques. Notice its simplicity and clarity, its careful design which uses dark and light values and structurally related horizontal and vertical lines to make an easy path for the viewer's attention. See the logical grouping of like objects by their placement against rectangular panels. The addition of real tobacco leaves adds texture and color, as well as giving the feeling that these pipes were used to smoke real tobacco.

The display also demonstrates ways of attaching small objects to a vertical

plane. In the case of the tobacco leaves (and other such lightweight objects) pins or transparent tape are adequate.

Heavier objects are harder to mount. Note the fabric-covered plywood panels supporting the pipes and the perforated masonite panel with the shelf holding what appears to be a figurine.

The perforated masonite pegboard is widely useful because of its strength, versatility (with the many attachments available) and the ease with which displays can be arranged. A whole display area backed with pegboard is of course the best device, but lacking that a panel is very helpful. The panel can be attached with brads driven into a corkboard or fiber bulletin board (providing the brads connect with some firm back surface). Small shelves are easily hung on the pegboard. By distributing the weight of the object in this way to the panel and to the four or more brads, fairly heavy things can be attached.

With a pegboard, lightweight objects can be supported by thumbtacks, pins, or brads. Glue-on hooks can be fastened to the back of the object and then hooked over two pins driven firmly into the wall and bent together to form a loop. Heavier objects can be attached with wires to a panel which has been fastened to the wall with brads. The tube pipes and platform pipes in the picture are attached in this way.

There are many gadgets on the market for attaching materials. Sometimes the gadgets themselves inspire ideas—for instance, circular supports suggest test tubes.

A three-dimentional look will attract attention to the bulletin board. As it gains a lifelike dimension it invites the active participation of the viewer, particularly if the display is thoughtfully arranged. If, for instance, rocks showing fossil remains are placed on small shelves next to photographs of the terrain where they are found, the grouping can be rounded out with drawings showing the probable look of the original plant or animal.

While three-dimensional bulletin boards cannot substitute for an exhibit case when there are large things to be shown, it can be effective in limited space for small objects such as those which children bring to "show teacher."

3D

By Irene F. Cypher

A TOUCH OF REALISM IN THE CLASSROOM

THE TERM "three-dimensional material" is not limited to the film and photographic materials so glibly labeled "3-D." The diorama can also claim merit as a three-dimensional device with value for instructional purposes.

The diorama has been defined as: "The miniature, three-dimensional group consisting of small modeled and colored figures and specimens, with accessories, in an appropriate setting against a curved background, and in many instances artificially lighted. The scale and size of the group is variable; there is no limitation as to subject matter, which may be realistic or imaginative according to what the creator of the group wishes to portray." (*The Development of the Diorama in the Museums of the United States*, by Irene F. Cypher. New York: New York University, 1942. PhD thesis.)

The diorama as we know it today has many ancestors. Among them are the small religious groups, miniature carved models, objects such as the familiar dish gardens made by the Japanese, panoramas or cycloramas of sweeping scale, modeled scenic groups, and stage sets.

Dioramas originally came into use as display mediums in museums, and proved effective as a way of showing historical events, peoples, and nature groups. Eventually they were made a part of the circulating collections loaned to schools by these same museums. The educational world adopted the diorama as a teaching aid, and it has been used on all school levels from elementary to university.

In order to appreciate the instructional value of the diorama, several factors should be considered. First, it is a modeled group, set against a background which by careful utilization of perspective and placement simulates an illusion of reality. The miniature size of the group has not been a barrier to its effectiveness as a display medium. On the contrary it has apparently endeared the group to viewers of all ages. There is an inherent love of the miniature in us, and we react to it as we do to all good "make believe" when well presented.

The fact that the figures and accessories are set against a background which curves gives depth and body to any scene presented. The curved background stems from the fact that the diorama is a segment of the cyclorama. Flat cardboard cut-outs and [illegible]hoeboxes are not dioramas. They [illegible]ale models of a sort, but lack the three-dimensional quality provided by the curving background of the true diorama.

If the foreground and accessories are properly placed in what is known as forced perspective, then foreground and background blend to give a realistic three-dimensional illusion, and the diorama becomes a display medium with many potentialities, especially for historical and geographical subjects. By means of this small group it becomes possible to set up in the classroom scenes from life in far-off corners and re-creations of the past.

One controversial factor lies in the use of motion and mechanical animation. Commercial and industrial mak-

1—Diorama is inexpensive way to bring realism to classroom. Name comes from Greek word meaning "to see through."

2—A small structure, diorama fits on window sill or desk. Note how intently teacher studies placement of objects.

3—Pre-construction sketch determines what will appear in diorama. Simple materials are basis for construction.

ers often put mechanical gadgets and swinging objects in the groups they make for advertising purposes. These are attention getters, but they also detract from the effectiveness of the diorama as an instructional medium. The eye tends to follow the moving object to the exclusion of other details in the group.

A good diorama, somewhat like a good piece of sculpture, is so constructed that it can suggest the possibility and capability of motion without actually moving. Thus the viewer is free to devote his attention to details and the diorama becomes a true aid to learning.

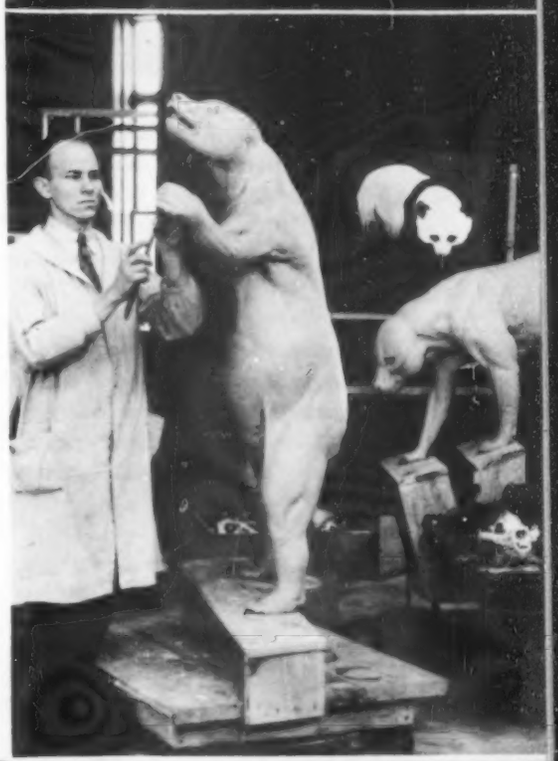
Almost the only source of ready-made dioramas at the moment is the museum having an educational service department. Normally, the teacher is left to construct his own.

We can therefore evaluate the diorama from two standpoints. The ready-made diorama brings into the classroom a scale group which offers information to the viewers; it presents a picture; it shows people, objects, and scenes. Thus it is a picture group, and has value as such.

The diorama which a teacher and pupils make offers an opportunity for research and pre-construction planning; it allows pupils to acquire skill in construction techniques; it provides an outlet for creative expression.

Certainly, a good diorama in the array of instructional materials has much to offer and brings a delightful 3-D quality which has appeal for pupils. Take a look at your selection of materials, and see if a little dose of three-dimensionalism won't add a touch of reality to your teaching.

6—Children listen raptly to account that goes with finished diorama. Contents may be realistic or imaginative.



7—Effective display medium, diorama was introduced in U. S. museums about 1912. Found way into classroom through loans.

8—Here is typical museum diorama for school use, artificially lighted and combined with printed study material.

4—Shell or framework is first step. Note curved background which will give depth and realism to scene presented.

5—Background is painted when shell has been constructed. How objects are placed will determine perspective.

Pictured here with his students is a teacher who substituted diorama for tedious reports. The class surveys a finished product, presented with oral and written comment. Discussion follows.

By JOSEPH W. DUFFY

1—A committee elects to do the early life of Abraham Lincoln. Here they are busy in the library collecting data.

2—Project will take the form of a diorama. Group plans work under the supervision of industrial arts teacher.

3—Part of the committee makes frame, bottom, and back of diorama. Others fabricate scale model of "log cabin."

develops research skills

MUCH HAS BEEN SAID about the theoretical values of instructional materials. The real proof is in seeing what pupils can do with certain materials, and what they gain from certain types of experiences.

We invite you to take a quick trip to see what happened when 3-D came to the classroom at Russell Sage Junior High School in Queens, N. Y.

In this instance 3-D takes the form of a diorama made by the pupils themselves. We therefore have a situation in which to observe two things: the effectiveness and merit of a three dimensional display; and the values to be gained as a result of research, planning and construction.

Thus, two types of learning are under observation. We believe the countless possibilities they offer will soon be obvious.

Most teachers require some type of committee research project as partial fulfillment of the student's term work. To be educationally sound, this project should challenge the committee to the fullest extent. It should reflect thought, imagination, resourcefulness, academic pursuits, and if possible, motor skills. The more educational objectives the project satisfies, the richer the group's experience.

In the past I accepted written and oral reports because they required students to do simple research, develop library skills, and compile data. However, I found that the majority of term reports expressed little thought and imagination. When orally presented to the class they were sometimes dull. It seemed like a waste of time.

I came upon three-dimensional reports as a panacea for my research dilemma. I found that they required research and collection of data, and in addition developed experiences impossible to bring out in the written and oral report.

For instance, there was a chance for cooperative effort on the part of the academically gifted and the craftsman; students exercised imagination in the use of old and new materials; hobby and leisure-time interests were brought into play.

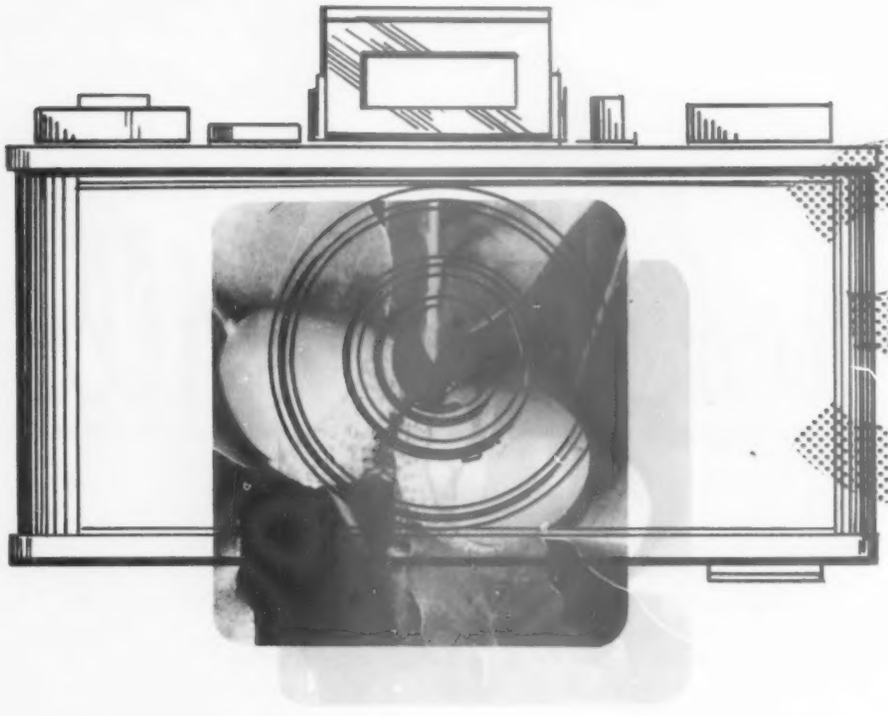
The result was a tangible product, easily understood and appreciated; a teaching aid that could be used by other classes. Knowing that the project would be used by the school gave a feeling of satisfaction and pride.

The cost of material, time, and effort are negligible compared to the benefits that accrue from this educational adventure.

4—Plaster of Paris is used for terrain; is given texture and form by employing hand and fingers with dexterity.

5—Committee "artists" paint back and foregrounds aided by related materials and arts teacher to achieve realism.

6—Work is assembled with care. Note how chickens in front are made larger than those in background to give depth.



and 3D

By VICTOR WISNER

STEREO PHOTOGRAPHY is not new, but the use of 35mm color films in small, compact stereo cameras is still relatively untried. The results obtained can be excellent. These cameras cannot, however, yet be recommended for many 3-D pictures used in science classes such as the closeups of plant, animal, and mineral subjects that are so superior to flat pictures, even those taken in color.

Regular stereo cameras are useful at distances from three or four feet to infinity. In some cases they operate closer than three feet, but the short focal-length lenses do not provide a real close up. In order to photograph an object in natural size with a 35mm lens, it can be only 70mm away from the object. Even if it were possible to focus at such a distance, the stereo camera lenses would be so far apart that it would be necessary to take two successive exposures with the camera moved sidewise between exposures. If two exposures are necessary, there is nothing to be gained by using a stereo camera. Any regular 35mm camera can be used.

Almost all stereo instructions will suggest the use of a slide bar. True enough, a slide bar can be used with any camera at any distance. The camera is placed on the slide bar and one picture taken; the camera is moved sidewise on the bar a given measured distance and the second picture is taken. The catch is in figuring the distance. It is different for every different distance between lens and object, and this becomes increasingly critical the closer the subject is approached.

For genuine close-up work a camera that will take pictures as much as twice natural size is almost a necessity. It should be possible to focus and compose the picture on a ground glass, and the lens should be long enough in focal length to leave room for lighting the subject as well as giving better perspective. (A six-inch lens will be nine inches from the object when making a two-diameter enlargement. A two-inch lens would be only three inches away.) Lighting, focusing and exposing problems are the same as for single pictures.

For convenient close-up stereo there are two requirements: It must be possible to move the camera back and forth easily to photograph different sizes of objects; it must be possible to shift the camera sidewise the correct amount for any position of the camera, without mathematics. An arrangement which does both is described in the following paragraphs and illustrated by the photographs at the right.

A rod with a length of at least three feet is required. Sliding on this is a support for the camera. The slider can be locked anywhere along the rod, but will permit tilting the camera in a vertical plane. One end of the bar is pivoted so it may swing in a horizontal plane about that point. The object to be photographed is centered above the pivot, but in no way connected with it. Three feet from the pivot a stop is provided on each side of the bar so it may swing at that point through an arc of one inch. Some variation from this one-inch arc is permitted but much variation will produce slides not suited to projection.

In operation the camera axis is lined up parallel to the bar, the photographer making sure the camera is level. Focusing may be done with the bar midway between the stops. When the photographer is ready to take the pictures, the bar is swung right against the stop for the right-hand view, then left for the other. A regular 35mm frame is larger than the stereo size, so the image size on it must be such as to come within the limits of the masking window. The films may be shifted sidewise in mounting so that careful horizontal centering is not important.

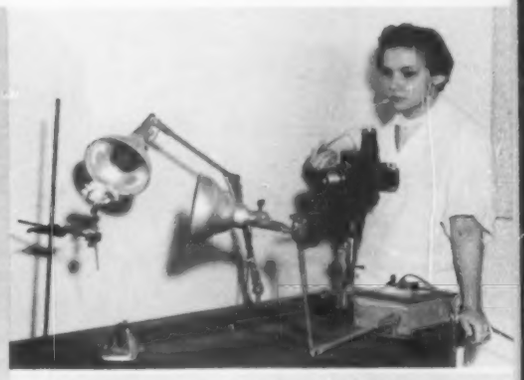
For mounting, the necessary supplies are stereo aluminum masks, stereo mounting jig, stamp tongs, cover glasses, binding tape, labels, hand viewer. There are three varieties of aluminum mounts—close-up, medium, and distant; but when mounting 24 x 36mm films instead of the regular stereo size, any or all of them may be used.

your standard 35mm camera

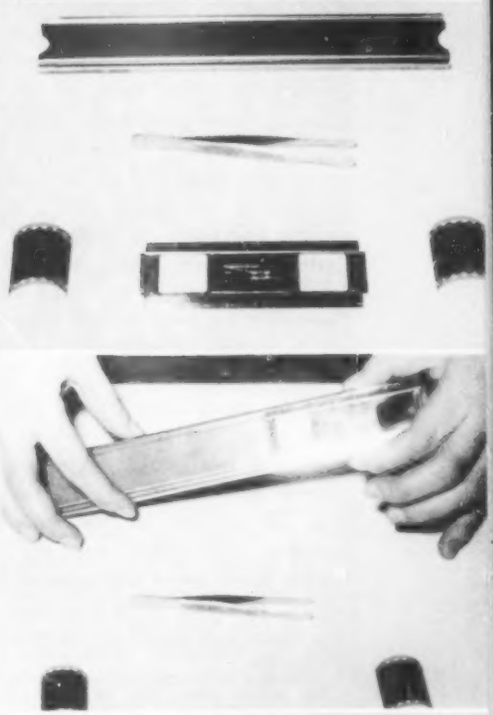
When mounting, slip one of the aluminum mounts in the mounting jig according to directions. Use the stamp tongs to handle the films, inserting the right-hand picture, emulsion side up, in the left side of the mount and the left-hand picture in the right side. This is not a misprint because the slide will be viewed from the outer side. Just putting the films in the mask is not enough. One must be centered over the mask opening and the other moved sidewise until, as seen in the viewer, all parts of the picture seem to be behind the mask opening. Moving the films closer together will make the object (or parts of it) seem to be in front of the opening. This effect is not good, especially for projection.

The final step in adjusting the films is to line them up horizontally. (See photograph at lower right.) Check for alignment by viewing with one eye closed and then the other. If a particular point seems to move up and down as viewed with one eye and then the other, the films are not in alignment. Once lined up, the mount is placed between cover glasses and taped up. A label completes the job. The usual precautions must be taken to insure that no dust or dirt is bound into the slide.

Making these slides is time consuming. No commercial mounting is available. The results? If you wish to get an idea beforehand, examine some small, colorful flower, insect, or other object with the low power of a stereo microscope and with good light. Slides can be that good, and better, because of greater depth of focus and greater comfort in viewing. Projected, well mounted slides are very unusual and very good, but nothing will quite equal the pleasure of looking at them with a viewer. They have to be seen to be believed, and in many cases you can't believe them when you see them.



1—View of setup. Student takes 3-D picture with 35mm camera. Note how camera is supported by movable attachment on three-foot rod. Slider permits tilting.



2—Materials for mounting: stereo mask, top center; color transparencies on either side; stamp tongs, center; mounting jig. Tongs are for handling films.

3—Aluminum mask is slipped into mounting jig. Aluminum mounts are of three kinds—close-up, medium, distant. All three may be used with 24x36mm films.

4—Right-hand picture is inserted emulsion side up in left side of mount; left-hand picture, in right side. Proper adjustment of films is important

5—One film is centered over mask opening; other is moved sideways until all of picture seems to be behind opening. Films are then lined up horizontally.

SWITZERLAND

3D for be

By Ch[illegible]

UNDERSTANDING the language of maps has increased rapidly in importance since most of us were learning from geography books. Evidences of this are found in the number of new maps and globes produced for school use since 1945, in the greater emphasis on integrated map study in curriculums, and in the heightened interest in world affairs. The result has been to shift map reading to a role of practical necessity.

This is all to the good. Needs must be recognized before they are acted upon. Yet recognition by itself is only a beginning. Robinson discovered as recently as 1952 that less than 20 percent of his university freshmen were able to pick up information from maps with ease and accuracy. In short, their previous map experience had failed to communicate effectively.

So what can the teacher do to give pupils map reading experience that does communicate? Of several useful approaches, one is to recognize the highly abstract nature of most maps and the consequent necessity of teaching them with the s[illegible] that is exercised in other difficult subjects.

The first step should be taken on familiar ground. With primary youngsters this means preparing simple maps of their classroom, the school yard, or the route home. They may or may not be to scale. The important thing is the association of lines and simple symbols with something which is real to them and therefore has meaning. (See Figs. 1 & 2.)

Realism can be aided materially by the use of models and pictures. Youngsters delight in miniature houses and animals on a sandtable, such as those shown in Fig. 3. Models of this type have a similar charm for older pupils—even adults—when the scale and workmanship are good. From the standpoint of map reading, 3-D realism is generally helpful in the transition to flat symbols.

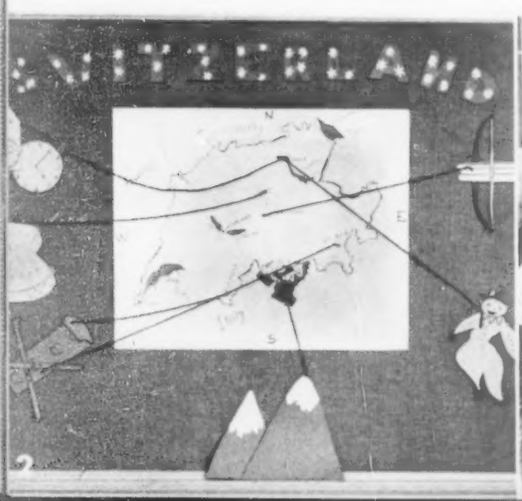
To this point we do rather well in our schools. Elementary teachers know that youngsters learn most readily through participation in situations having real meaning for them. It is when we move into the study of distant peoples and places that map communications begin to break down. This transition can be aided materially by making 3-D maps of local areas.

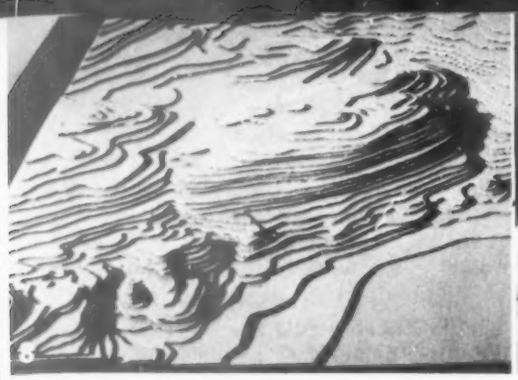
Three dimensional relief maps of certain representative small areas of the United States are available commercially in light, inexpensive plastic form. (See Fig. 4.) For the most part, however, it will be necessary for the teacher to construct relief maps of local areas. This can be accomplished with little difficulty if these directions are followed:

1. Secure a topographical map of your locality from the geography department of your state university. Maps with accurate contour (elevation) lines for quadrangles 10 miles wide by 15 miles in length are available for most states from the U. S. Geological Survey at about 25 cents.

2. Select an area from two to four miles square including your vicinity and outline it in pencil on the map surface as was done in Fig. 5.

3. Enlarge the selected area by use of an opaque projector to what-





better map communication

ever size is desired. A convenient size is from 18 inches to 2 feet square. Carefully trace the contour lines on a large sheet of paper (Fig. 6). If you do not have access to an opaque projector use the grid technique described in Step 4.

4. Place a series of small squares in pencil over the area selected for enlargement. On a large sheet of paper—as large as you wish the enlargement to be—place the same number of squares. Trace on the copy sheet each contour line from the original map by using the comparable squares as guides (Fig. 7). Be sure to identify each line with the indicated elevation. Keep the original map for later reference.

5. By means of carbon paper, trace the lowest contour level on a piece of corrugated cardboard and cut it out with a pair of scissors. Cardboard thickness of from ⅛ to ¼ of an inch is about right. A corrugated cardboard carton from a grocery or drugstore works nicely. Identify this piece by writing the elevation on it. Then trace and cut out the next elevation in the same manner and repeat for all of the contours.

6. Next prepare a base of pressed board or similar material. The base should be strong enough not to bend easily and should be somewhat larger than the map. A 30 by 40-inch base is about right for an 18-inch square map; a 3 by 4-foot base is suitable for a map 2 feet square. Stain or paint the base for background.

7. Using the enlarged map of contour lines for reference, carefully mount the several contour sections on top of one another on the base. Use a stapler in the open (nonclinch) position and glue between the several levels. Allow to dry (Fig. 8).

8. Buy two 2-lb. cans of Spachling Plaster from a paint store (cost about 35 cents per can) or prepare a mixture of 2 parts plaster of Paris and one part patching plaster. Mix the latter thoroughly before adding water sufficient for a consistency of library paste. Since the patching plaster mixture sets quickly it is advisable to mix no more than about one pint at a time. The Spachling Plaster comes already mixed, is less messy, and does not set so rapidly.

9. Apply either of the above mixtures to the surface of your map, filling in the "steps" and just covering the edges of the cut-out sections. Smooth out and mold as needed (Fig. 9). Allow to dry overnight.

10. When dry, seal the surface of your relief map with white shellac. This dries rapidly and in a short time you can paint alternate levels in desired colors with enamel or flat quick-drying paint. To avoid running colors together, allow painted sections to dry before painting the sections between. It is well to use subdued rather than bright colors and to follow to some extent the color patterns used on commercial relief maps.

11. An alternative to the painted surface is to sprinkle sand while the shellac is still tacky. This provides an earthlike appearance which may be preferable for teaching purposes. It is also possible to tint various areas to show vegetation, rock formations, rivers and lakes. Principal streets and landmarks may be printed in.

The teacher will have noted that certain steps can be done by students and that much experience in map interpretation will be gained in the process. When complete, the relief map of your community can be used as a continuous reference for geography and social studies classes. Of more significance from the standpoint of learning is the use of the immediate environment to give meaning to map symbols which otherwise often remain abstract.

WITHIN THE DAVI FAMILY

National Committees Report Achievements

THE DEPARTMENT of Audio-Visual Instruction inaugurated the Field Service Consultant Program in the fall of 1955 as a consultation service to colleges and public school systems interested in the planned use of instructional materials.

Educators experienced in the administration of audio-visual programs were selected by the DAVI Field Service Committee (a sub-committee of the Executive Committee) to serve as the first group of consultants.

The program is financed partly through a grant from Teaching Film Custodians which pays an honorarium for time spent in consultation. The school system or college receiving the service pays the consultants' travel and living expenses. Adequate funds are available to provide approximately 15 visitations each year. All requests are reviewed by the Field Service Committee.

Since the announcement of the program in the fall of 1955, twelve inquiries have been received and four consultation programs approved. One took place in the Des Moines (Iowa) public schools in December and two others at the University of Virginia and Harding College in March and April. A request from the Oklahoma City public schools was approved recently and a team assigned for early May. Other requests are under consideration.

Following the Des Moines program, N. D. McCombs, superintendent of schools, wrote to the chairman of the Field Service Committee as follows:

"I wish to express our deep appreciation of the Field Service survey conducted by DAVI and our gratitude for the high caliber of men assigned to the team that came to Des Moines. One of the most valuable contributions made by the consultants was the direct result of their generous offer to discuss the report with all members of the Board of Education before they left town. I arranged a luncheon meeting and both of the members of the survey team did an excellent job of selling themselves as experts in the field as well as clinching their arguments in favor of further expansion of our Department of Audio-Visual Education. All members of the Board were deeply impressed by the thoroughness of the survey and the logic with which the findings were presented. I am convinced that the time spent with the Board members will be most productive as we implement the suggestions made in the report."

As chairman of the Field Service Committee, I am confident that DAVI will receive similar letters after consultation programs are completed in other colleges and city school systems. DAVI is meeting a real need through this program made possible by funds from Teaching Film Custodians.

—LEE COCHRAN

"Criteria" Released

The long awaited *Evaluative Criteria for Audio-Visual Instructional Materials Services* has been released. This publication provides for the critical examination of all phases of an audio-visual program including AV staff, program organization and administration, and questions concerning the adequacy of AV materials, equipment, facilities and utilization. The *Evaluative Criteria* was designed primarily for use in secondary schools, but is useful at both elementary and higher levels.

The publication was prepared by the DAVI Committee on Accreditation of Secondary Schools, chaired by Daniel Rohrbach. By permission of the American Council on Education the instrument follows the format of Section F, *Evaluative Criteria, 1950 Edition, The Cooperative Study of Secondary School Standards.*

Single copies are free from the Department of Audio-Visual Instruction. Prices for quantity orders are: 2-10, 10c each; 11-99, 8c each; 100-499, 6c each; 500 and up, 5c each.

1956 Tape Supplement

The DAVI-AERT Committee on Radio and Recordings is now working on the 1956 Supplement to the National Tape Recording Catalog. If you have or know about outstanding educational programs on tape, please notify Ralph Hall, Kent State University, committee chairman, or DAVI headquarters.

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From the States

Officers of the Pennsylvania Audio-Visual Association for Teacher Education for 1955-56 are Kenneth L. Bowers, West Chester State Teachers College, president, and Eugene Powers, Villanova University, vice-president and secretary.

PAVATE, the companion organization of AVID of Pennsylvania, was organized in 1949 with A. W. VanderMeer as its first president. Other former presidents are Dr. Daniels and Gerald Torkelson.

To accomplish its aim of improving teacher preparation in audio-visual education the organization meets biannually at the teachers colleges and at Harrisburg. A suggested course of study for the state-required course in audio-visual education has been compiled, and a survey of the state's audio-visual building facilities and equipment is in progress.

PAVATE feels that meeting in the various colleges develops appreciation among its members for others' problems and spreads ideas and information about the operation of audio-visual centers.

PENNAVID Legislation

A recent report issued by Daniel A. Rohrbach, chairman of the legislation committee, indicates that AVID's proposed audio-visual legislation for Pennsylvania is receiving favorable recognition.

The bill (HB1936) which has been referred to the Appropriations Committee reads in part:

"(a) With the approval of the Department of Public Instruction any school district or joint school board may provide for the increased and more effective use of audio-visual aids for the improvement of instruction in its elementary and secondary schools. Such audio-visual aids may include television, radio, motion pictures, filmstrips, slides,

opaque projections, recordings, and equipment for their utilization.

"(b) No school district or joint school board so establishing an expanded audio-visual education program shall expend thereon in any year an amount in excess of one per centum of the district's or joint school's budget for instruction for the previous year. Of the amount expended the Commonwealth shall pay the proportionate part equal to the standard reimbursement fraction as defined by Section 2501 of the district or of the districts operation of the joint school in the same proportions as they contribute to the maintenance of the joint school. The school district or the joint school board shall pay the balance.

"(c) Moneys provided for the purposes of the section may be used for the purchase of additional audio-visual materials and equipment, the payment of rentals and service charges therefor, participation in cooperative arrangements and in financing of the administration of the audio-visual program."

The apparent limiting clause in this legislation has caused some comment; however, the practical effect limits only state participation and leaves local districts free to spend according to their needs.

Ohio Sets Requirements

The AVDO and Ohio College Association are working to initiate certification for AV coordinators in the state. The requirements will follow those proposed by DAVI. A planning committee is also at work determining requirements for building coordinators for elementary, junior high, and secondary schools. Coupled with these activities is the attempt to have a certain amount of pre-service audio-visual training made a requirement for all teachers.

Problems in Oklahoma

The news letter of the Audio-Visual Coordinators of Oklahoma cites two outstanding problems in their state, namely: a lack of audio-visual coordinators with good backgrounds in general education, curriculum, audio-visual, methods of teaching, and ability to work with teachers; and a lack of properly equipped classrooms for effective use of projected materials.

Michigan Fall Meeting

The Michigan Audio-Visual Association will have its annual fall meeting in Ypsilanti, November 5-6. Marie McMahan, audio-visual director for the Battle Creek schools, is president.

Activity in New York

A report on a survey to determine audio-visual personnel in the schools of New York State has just been completed by J. Gerald Loughlin, Elmira, vice-president of the New York State Audio-Visual Council.

The 610 names counted include persons responsible for audio-visual programs in a range from full-time director to classroom teacher with no released time. This is the first complete list ever compiled, and it was the opinion of the committee in charge that the true number of audio-visual personnel is even higher because some schools did not respond.

A new audio-visual group has been formed in western New York State, making a total of seven in the state. Thomas Schreiner, director of audio-visual education in the Williamsville public schools is chairman. Alan Nicol, director of audio-visual education for the Buffalo schools spurred the organization of the group. One of the first projects of the Western New York Audio-Visual Council is to offer to administrators in the area programs and services relative to equipping new school plants for modern teaching methods.

The Westchester County Audio-Visual Council, in conjunction with the County Council of Superintendents, the Association of Elementary Principals, and the Secondary Principals of the County, met during the Teachers Association Conference May 3 at the White Plains High School. Francis E. Almstead, special consultant on educational television to the State Education Department, spoke on what television can do for education and what education can do for television.

Program Announced for Portland Meeting

HERE IS THE PROGRAM for DAVI's summer meeting in Portland, Ore., which will take place July 2 in connection with the NEA convention. Announcement was made by the Planning Committee whose members are A. Kingsley Trenholme, chairman, Harold W. Coman, Edith M. Davidson, Amo De Bernardis, William Gnaedinger, Alexander H. Howard, Jr., Curtis Reid, and Constance Weinman.

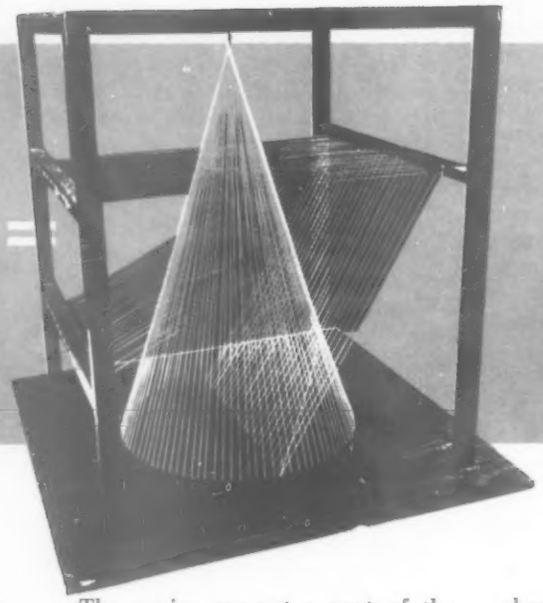
Co-chairmen for the morning session in Portland are William Gnaedinger and Jack Edling, Oregon College of Education. Milton Grassell, president of OAVA, is chairman for the luncheon; and Beatrice Wharfield, president of WAVA, hostess for the coffee hour.

DAVI SUMMER CONFERENCE PROGRAM

TOPICS FOR THE DAY: AS THE PACIFIC NORTHWEST SEES IT FROM HERE
DAVI MEETS THE CHALLENGE

9 a.m.	Coffee Hour
10:05	*Children Use Instructional Materials—How We Can Best Provide Them with These Tools for Learning* Joseph I. Hall, Oregon Department of Education "Classroom Books" Sue Lacy, elementary principal "Library Books" Grace Stevenson, American Library Association "Audio-Visual Materials" L. C. Larson, president, DAVI "Classroom Equipment" Amo De Bernardis, Portland Public Schools
10:55	*How Should Instruction Materials Services Be Organized and Administered To Provide the Tools for Teaching?* Henry Gunn, Superintendent of Schools, Palo Alto, Calif. Floor Discussion
11:35	*Summary* William Gnaedinger, Washington State College
12 noon	Luncheon
1:15 p.m.	Sneak preview of new NEA film, "A Desk for Billie"
2:15	*DAVI Meets the Challenge* Floyde E. Brooker, executive secretary, DAVI
2:45	Business Meeting

STRING + FUN = 3D



THE CONCEPT of a conic section is not a difficult one. An elementary teacher can easily shape a cone of modeling clay and cut it to show the conic sections as illustrated in Fig. 1. The circle is shown by a horizontal cut, the hyperbola by a vertical cut, the parabola by a cut parallel to the opposite side, and the ellipse by a cut at an angle between that of the circle and the parabola.

The teacher can expect many of her students to grasp the idea of conic section from this demonstration.

Stitching curves and making string models are activities which can be either highly meaningful or highly trivial, depending on the approach used. The handwork required is simple; the mathematical theories involved may become complex. The result is that these activities may easily degenerate into handwork projects which provide entertainment but contribute little to mathematical understanding. The skillful teacher goes beyond the model and uses it as an introduction to the basic principles involved.—M. H. ARENDT, executive secretary, National Council of Teachers of Mathematics.

The conics are not a part of the traditional course of algebra for ninth-graders, but a fair amount of material may be introduced through projects and still remain within the traditional framework. The best project to begin with is curve stitching which, though simple enough to be done by much younger students, is still worthwhile for freshmen. If, on intersecting lines an equal number of equally spaced points are marked on two intersecting rays beginning from their common point and these points are joined in inverse order by straight line segments, the line segments are tangents to a parabola. In curve stitching, the points are holes and the line segments are pieces of thread, thus the "curve" is "stitched."

The thread is fastened to the back of the cardboard and pulled up through hole 1 at the top, down through hole 1 at the bottom, up through hole 2 at the bottom, down through hole 2 at the top, up through hole 3 at the top, and so on. Fig. 2 shows the thread having just been pulled through hole 4 at the bottom and about to be entered in hole 4 at the top. Fig. 3 shows a later step in the construction of the parabola. Three-dimensional designs may be made using cardboard boxes or coat-hanger wires mounted in blocks of wood. The flat designs in Figs. 4 and 5 were made with embroidery thread and cardboard, but yarn, string, sewing thread, and copper wire have been used with construction paper, cloth, and plywood for such curve-stitch designs. There are other curve-stitch designs but the parabola is the easiest to make (Figs. 2 and 3).

There is always a group of students who are amazed and delighted to see a curve formed by straight lines and some like to pick up a string model and feel it. There seems to be an awakening in students that comes with their experience in curve stitching. They begin to understand that mathematics is not just arithmetic, but something much bigger which

Fig. 1—Clay cones are cut to show circles, hyperbola, parabola and ellipse.

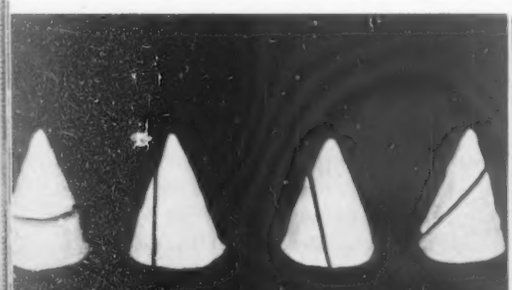


Fig. 2—Curve stitching is done on cardboard. Here is first stage of parabola.

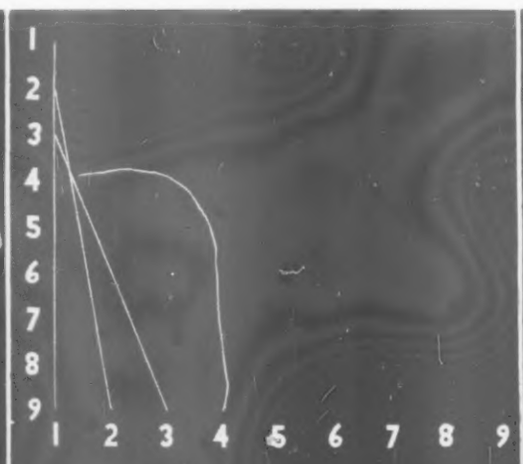
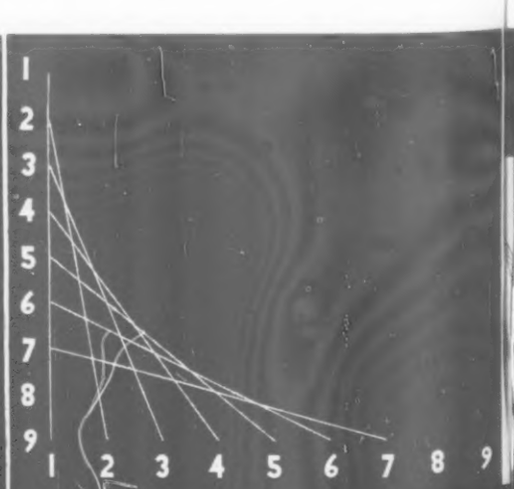


Fig. 3—Later stage in parabola. Points are holes; lines are pieces of thread.



By JOSEPH W. KENNEDY

string models for math

The author thinks it unfortunate that experience with more advanced concepts such as conic sections is seldom available to elementary pupils. When withheld until late in the secondary program many students fail to grasp them wholly. Also, by this time conics are treated by algebra and the beauty of their geometry is lost in the solution of equations. The author shows how conic sections can be introduced in high school through visual materials. Elementary teachers will see that they too can use some of these techniques.

may be experienced in many ways. Various applications of the parabola are a logical topic for discussion at this point. One of the boys might bring a parabola reflector to show the class, and the motion picture, *Parabola*, can be shown if interest warrants it. Following this, other projects are sure to come.

In the ninth-grade unit on graphing quadratics, which includes only the parabola, a good topic for projects is the graphing of the other conics. The graphical representation of an equation shows relationships that can never be seen from the equation alone.

An important part of project work are the displays made by pupils. A wire stretched about 10 inches above the blackboard will permit the display of a substantial number of curve-stitch designs. A strip of cork or other tackboard material will serve as well. It is not easy to display these designs on most tackboards because they are large, but the latter is a good place to display graphed equations since they need to be examined closely. A tackboard display on conic sections does arouse interest, and pupils will learn from it.

In the tenth year conics may be studied as loci. Models which show conics as loci are easily made by many tenth-graders. Often these models are movable and demonstrate the conics through the tactual sense. The conics may be drawn by means of ruler and compass or constructed by paper folding. In Fig. 7 (next page) an ellipse is formed by folding point A on to the circle a number of times. Other conics may be made by taking point A outside the circle or by folding point A on to a straight line. The materials are waxed paper.

Now that students have had practice with drawing instruments, they can prepare slides showing the conics as graphed curves. Some boys at this point have enough manual skill to turn a cone on a lathe, section it, and thus produce a dissectable cone.

These projects in the ninth and tenth grade on conics are not intended to be a part of the course of study and indeed, do not in most cases even supplement the regular course material. Their purpose is to present information which some students are capable of understanding and to provide a suitable basis for class discussions.

In the 11th grade algebra course, the conics are studied in the unit on second degree curves. They are studied from their equations almost exclusively; often the locus conditions are not even stated. Graphing of the conics is the easiest way to show certain relationships and for the student who has had this experience in a project as a freshman or sophomore, the work may be made more advanced. A display of pupil-made graphs helps to motivate younger students and does much to encourage neatness and accuracy in mathematical drawing.

(Continued on next page)

Fig. 4—Two and three-dimensional curve stitching made with embroidery thread.

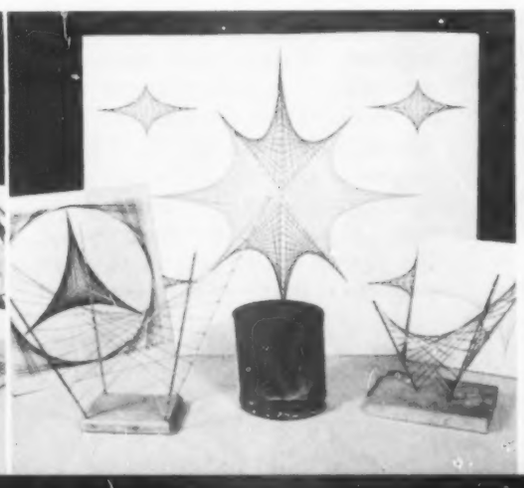


Fig. 5—Exquisite designs are possible. Copper wire sometimes replaces thread.

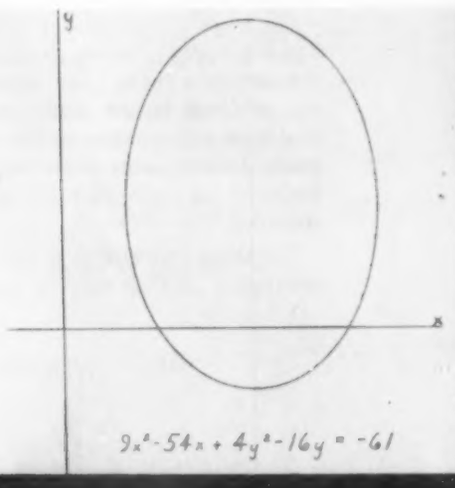


Fig. 6—Graphing ellipse shows relationships never seen in equation alone.

Graphic materials and articles which show applications of the conics are valuable in the 11th grade since many of the students will find careers in mathematics and science. A filmstrip called *Quadratic Equations* which goes beyond the level of most problems in the 11th grade can be used effectively over a period of a week or so. With materials of this type students can be pushed to greater achievements, and for that reason they are particularly valuable at this point.

A demonstration of a parabolic reflector, an elliptical billiard board (Fig. 8), or the hyperboloid as part of the variable cone-cylinder (Fig. 9) help make the theory work on conics more realistic. The variable cone-cylinders (Fig. 9) were made from oatmeal boxes and elastic thread. The picture shows three positions of the threads as produced by turning the top of the box. The middle figure is called a hyperboloid.

In most schools the 11th grade includes some work in solid geometry which is the best opportunity for studying conics. Study of the cone as locus provides an excellent reason for constructing a string cone.

The string cone, is the climax of curve stitching. Once it has been constructed (and this can be a class project) it may be studied through analytic geometry. While analytic geometry is not a part of the 11th-grade course, with the string cone as excuse, much can be taught incidentally.

Large enough to prevent its being hidden in a cabinet, the string cone always excites curiosity among younger students who like to view it from various angles to see the interesting patterns and sometimes to feel the surfaces. Such interest must not go unheeded, and thus the teacher has a reason for discussing conics, advanced mathematics, analytic geometry, and so on. As a result of models and discussions of this type, at least one ninth-grader built a copy of a string cone and did a good job, although he did not understand all the mathematics involved.

Twelfth-grade courses of study are not standardized, but many of the things discussed in the 11th grade may be used in grade 12. Further development of the analytics of the conics, Dandelin's Problem, revolutionary solids from conics, and applications in physics and astronomy are possible topics.

The study of the conic sections in the secondary program is a very flexible thing, sometimes being entirely different from the regular course and other times an important part of it. Its specific content will vary from year to year and from student to student. It serves as an effective tie between separate fields of mathematics, and is done almost entirely with models, diagrams, graphs, pictures, and other visual materials.

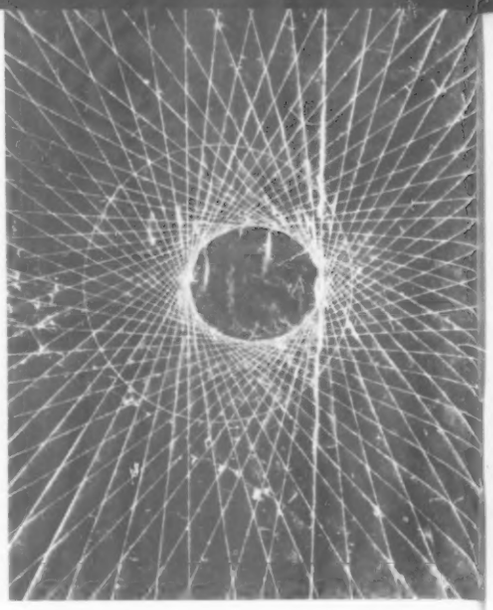


Fig. 7—Ellipse formed by folding point on circle. Material used is wax paper.

Fig. 8—Elliptical billiard board helps make theory work on conics realistic.

Fig. 9—Oatmeal boxes and elastic thread show the cone, hyperboloid and cylinder.

string and spring

By ANITA M. GORMAN
Weston High School
Weston, Massachusetts

ALMOST EVERYWHERE baseball, polliwogs, and water pistols are sure signs of spring. But in Weston, seventh-graders look for another sign —the eagerly awaited day when they can begin their "string designs." For the past two years, after introducing my students to the basic geometry problems appropriate in the seventh grade I have spent a few classroom hours on the process known as "curve stitching."

For those unacquainted with it, this interesting pastime may be described as the art of creating curved patterns or illusions solely through the use of straight lines. To guarantee that the lines will be straight, and for general ease of construction, pieces of thread are "sewed" onto cardboard backgrounds.

Almost all of the children take to their string projects with great enthusiasm. Parents also react with characteristic response. Shortly after the season opens, the questions start floating back: What have these string designs to do with mathematics? Is anything supposed to be learned from them? If not, what is their purpose? The answer to the second of these questions is relatively easy. No lesson

is intended; no mathematical techniques are taught, at least not in any formal sense. But it does not follow that the project has nothing to do with the teaching of seventh-grade mathematics.

Curve stitching can be beneficial to junior high school students for at least two reasons. It stimulates their interest in further mathematics study, and shows them that mathematics can be fun.

The curve stitching which Mrs. Gorman describes is in my opinion a worthwhile teaching activity. It is easy to do, strongly appeals to junior high school pupils, and tends to develop in them a curiosity about mathematics which manifests itself in later achievements. Teachers of junior high school arithmetic looking for ways to stimulate interest will find this a practical teaching device. —Julius H. Mueller, principal, Weston High School.

Children in junior high school can also make decorative parabolas, hyperbolas, and ellipses with string designs. A visit to a senior high school class reveals older students working with and understanding these objects. Thus curosity is aroused, and a desire to learn algebra and geometry. A sense of confidence also builds in the seventh-grader when he sees himself able to create intricate-looking designs or models like those studied by advanced scholars. This prompts him when planning his high-school course of study to include four years of mathematics. Larger high school math classes mean more mathematics students in college, which in turn may mean more scientists and engineers to relieve national demands.

Besides inspiring further mathematical study, curve stitching is fun. At a time when the aforementioned baseball and water pistols fight in competition with arithmetic for the attention of the seventh-grader, curve stitching is a great help on the arithmetic side. Furthermore, fun with curve stitching lasts surprisingly long. Children work on projects on their own during the summer and in the eighth and ninth grades, and become impatient to get on to classes which help them understand their designs.

Forum

Title Dispute Calls Up Fresh Viewpoints

George Hammersmith, Toledo, Ohio, considers the title controversy ending in this issue a healthy sign. His letter follows first.

THE different points of view relative to the proper name for DAVI's new organ are most interesting and promising. Interesting because audio-visual educators are grappling with the basic idea and scope of the whole field of teaching tools. Promising because there is an interchange of thinking which spells growth and vigor in the utilization of these newer audio-visual materials.

We are rediscovering that we are teachers, first, last, and always—with a special know-how when it comes to giving life and meaning to the curriculum through application of audio-visual aids. The job of helping teachers do better what they're going to have to do anyway holds a bright future.

As we develop an over-all understanding of the subject area and grade-level needs we must always be aware that we're working with human beings.

In working with teachers we should strive to bring out their objectives. Yes, we know them, but it's healthful to take inventory periodically. What are we teaching? Why are we teaching it? What are the materials supposed to do for the pupil?

With definite goals in mind, the audio-visual specialist can then talk about methods—how to get results in the classroom through use of new teaching tools. Teachers want to know how to get these results. Once they are shown, they will become more interested in the use of tools. There's no use talking about the mechanical operation of an automobile to a man who has no interest in driving a car. However, that interest may be aroused by showing him what such transportation will do for him.

What does this have to do with naming our newborn publication? Well, it seems to bring out that, as audio-visual directors and supervisors, we must become more and more aware of the curriculum, help those charged with its unfolding, and by no means forget the classroom teachers.

It means that our "child" with full meaning and dignity, may well be named INSTRUCTIONAL MATERIALS. The whole country is willing to do more for free public education. We, the educational architects, are responsible for showing how definite results can be had by using new materials. # #

Present Title Ambiguous

In my opinion the title, INSTRUCTIONAL MATERIALS, sidesteps a fundamental issue in our efforts to foster prestige in the highly important area of audio-visual instruction. Perhaps we can incorporate the educational implications of our service without ignoring our identifying designation.

A title comparable to *The Audio-Visual Educator* would seem to retain a term which identifies our area and, in addition, to stress the instructional nature of our endeavor.

The cover of the magazine together with the subtitle should indicate the scope of the publication, as suggested in DAVI's *News and Views* for January 10, and as reproduced below:

THE AUDIO-VISUAL EDUCATOR

films • filmstrips • transcriptions • television • radio • pictures • displays

JOURNAL OF THE DEPARTMENT OF AUDIO-VISUAL INSTRUCTION

Following are my reactions to specific questions proposed in *News and Views:*

The title of our official magazine should have an audio-visual emphasis incorporating content with creation of reader interest. How the cover of the publication looks should be a primary concern to those fostering audio-visual techniques.

The magazine should not attempt an exhaustive coverage of library services although it would be unrealistic to exclude all reference to text materials.

DAVI's official magazine should have the greatest possible scope consistent with those undisputed areas of audio-visual service: sound media, educational television and radio, educational motion pictures, filmstrips, maps, charts, models, study prints, and other display materials. As progress is mirrored in the publication, it will serve naturally as a spearhead and frontier to those examining, evaluating, and applying usable elements of this progress to their own situations.

—EUGENE H. WHITE

Los Angeles

(Other letters on page 86)

CONSTITUTION REVISION

AFTER several years of study and work, the DAVI Constitution Revision Committee, composed of Paul Witt, chairman, Harold Benda, and George E. Ingham, submitted a report recommending amendment of several articles of the Constitution and By-Laws. The proposed amendments were approved by the Board of Directors at the Detroit meeting.

IN accordance with constitutional provisions, these proposals were circulated as a petition, signed by 46 active members and submitted in writing to the executive secretary.

FOLLOWING is the full body of the Constitution at present. The proposed amendments are indicated in color. You will note that the major changes consist of: (a) rewording of statement of purpose; (b) provision for the office of president-elect; (c) substitution of a nominating committee for the primary preference ballot in the election of officers and delegates-at-large; (d) election of the Executive Committee at the annual winter meeting, rather than by mail ballot; (e) shortening the time required to amend the Constitution and By-Laws from six to four months; and (f) revised categories of membership.

IN September you will be asked to vote on each of the proposed amendments. Please give these proposals your careful consideration so that DAVI may have the Constitution which will serve you best.

Constitution

Article I—Name:

The name of this organization shall be the Department of Audio-Visual Instruction of the National Education Association.

Article II—Purpose:

The general purpose of the Department of Audio-Visual Instruction shall be the improvement of education through the effective use of audio-visual materials and methods. Specifically, the Department shall (1) maintain and expand a national effort of audio-visual specialists, (2) plan and conduct long-range programs for the development of audio-visual activity, and (3) cooperate with other organizations and agencies whose interests and purposes are similar to those of the Department.

Article II—Purposes:

The general purpose of the Department of Audio-Visual Instruction shall be the improvement of education through the effective use of audio-visual materials and methods. Specifically, the Department shall maintain and expand national efforts of audio-visual specialists and other instructional resource specialists who are professionally engaged in the planning, production, or utilization of audio-visual materials, plan and conduct long-range programs for the development and improvement of the audio-visual field and of related instructional procedure in general, and, cooperate with other organizations and agencies whose interests and purposes are similar to those of the Department.

Article III—Membership:

Any member of the National Education Association may become an active member of the Department of Audio-Visual Instruction by paying such dues as are prescribed in the By-Laws. Types of membership are described in the By-Laws.

Article IV—Affiliation of State, Municipal, Regional, and National Audio-Visual Organizations:

Any active state, municipal, regional, or national audio-visual organization whose interests and purposes are similar to those of the Department of Audio-Visual Instruction, and whose constitution and by-laws are consistent with the Constitution and By-Laws of the Department, and whose membership includes twenty-five or more active members of the Department (members may be counted once only for purposes of determining the eligibility of an audio-visual organization for affiliation), may, on request, and on approval of the Executive Committee, become affiliated with the Department. The purpose of affiliation is to enable the Department of Audio-Visual Instruction and the affiliated organizations to work together more effectively in the achievement of their common goals. Each affiliated organization shall report annually to the Executive Committee the names and addresses of all members, the nature and extent of its program and any changes in its organization and purposes.

Such affiliation will be suspended automatically whenever any of the requirements of affiliation are not met.

Article V—Officers:

Section 1: All officers shall be active members of the Department of Audio-Visual Instruction.

Section 2: The officers of the Department shall be a president, a president-elect, a vice-president, and an executive secretary.

Section 3: The president and vice-president shall hold office for a period of one year or until their successors take office, and upon completion of such period of service shall be ineligible to serve in the same office again, for the next two years.

Section 3: The president shall hold office for a period of one year or until his successor takes office. The president-elect shall hold this office for a period of one year and then succeed to the presidency. The vice-president

shall hold office for a period of one year or until his successor takes office. Upon completion of their terms of office, the president shall be ineligible for election as president-elect for two years, and the vice-president shall be ineligible for election as vice-president for two years.

Section 4: The executive secretary shall serve at the pleasure of the Board of Directors.

Article VI—The Board of Directors:

Section 1: All members of the Board of Directors shall be active members of the Department of Audio-Visual Instruction.

Section 2: The Board of Directors shall be the governing body of the Department.

Section 3: The Board of Directors shall consist of (1) the president, the president-elect, the vice-president, and the retiring president of the Department; (2) nine members of the Department elected at large who shall serve for a term of three years, three to be elected each year in such manner as set forth in Article VIII; (3) any members of the Executive Committee who are not otherwise members of the Board of Directors; and (4) the presidents of the affiliated organizations, or their duly designated proxies.

Section 4: The president of the Department of Audio-Visual Instruction shall serve as chairman of the Board of Directors.

Section 5: The Board of Directors shall (1) formulate and approve policies governing the Department; (2) determine the general nature and scope of its activities; (3) fill vacancies in office until the next election; (4) be the custodian of the property of the Department; (5) be responsible for the management of the finances of the Department; (6) elect four members of the Executive Committee from its own membership; and (7) select the executive secretary.

Article VII—The Executive Committee:

Section 1: The Executive Committee shall have active charge of the affairs of the Department and shall be the ad interim committee of the Board of Directors with power to represent and act for the Board of Directors in the intervals between the meetings of that body.

Section 2: The Executive Committee shall be composed of the president, the president-elect, the vice-president, and the retiring president of the Department and four members of the Board of Directors elected by the Board of Directors for two years, two to be elected each year in such manner as set forth in Article VIII.

Section 3: The president of the Department shall serve as chairman of the Executive Committee.

Section 4: The functions of the Executive Committee shall be to recommend policies for the consideration of the Board of Directors, to execute policies approved by the Board of Directors, and to assume responsibility for the general administration of the affairs of the Department among which are the following important duties: (1) to prepare for the Board of Directors proposals regarding the nature and scope of annual and long-range programs of the Department; (2) to recommend a budget for the expenditure of the Department funds; (3) to determine the general duties of the executive secretary; and (4) to develop programs for such meetings as may be scheduled.

Article VIII—Election of Officers, Delegates-at-Large to the Board of Directors, and Members of the Executive Committee:

Section 1: Each year it shall be the duty of the executive secretary to have published in the November issue of the official publication or to send each member of the Department by November 1 a complete list of all the active members of the Department in good standing as of October 1 of that year; and to send to each active member in good standing by November 1 a primary preference ballot on which he (the member) can nominate from the membership list printed in the official publication one person for ~~president~~, president-elect, one person for vice-president, and three persons for delegate-at-large to the Board of Directors. These ballots are to be returned to the executive secretary by December 1 on which date they shall be counted.

The three persons receiving the greatest number of votes for nomination as ~~president~~, president-elect, the three persons receiving the greatest number of votes for nomination as vice-president, and the nine persons receiving the greatest number of votes for nomination as delegates-at-large to the Board of Directors shall be declared nominees for these respective positions provided they give their consent to stand for election and to serve if elected. It shall be the duty of the executive secretary to seek this consent. If any individual is nominated for two or more positions, he shall choose only one for which to stand election. In such an event, or in a case where an individual declines to stand for election, the person with the next greatest number of votes shall become eligible for nomination. In cases of ties each individual sharing the tie shall become eligible for nomination.

No later than January 1 following, the executive secretary shall send to each member in good standing an official ballot containing the names of the three nominees for president, the three nominees for vice-president, and the nine nominees for delegates-at-large to the Board of Directors. These ballots are to be returned to the executive secretary not later than February 1 on which date they shall be counted. The person receiving the greatest number of votes for ~~president~~, president-elect, the person receiving the greatest number of votes for vice-president, and the three persons receiving the greatest number of votes for delegates-at-large to the Board of Directors shall be considered elected. In case of a tie the Board of Directors shall determine by mail ballot the winner from those who share the tie. This balloting shall be conducted by the executive secretary.

Section 1: At the annual winter meeting, the Executive Committee shall appoint a nominating committee of not less than nine members, representative of the membership of DAVI by geographical location, by levels of education, and by types of position, to the extent that it is possible and practicable. The chairman of this committee shall be designated by the Executive Committee. By November first following, the nominating committee shall prepare an official ballot listing three nominees for president-elect, three nominees for vice-president, and nine nominees for delegates-at-large to the Board of Directors, with provision for write-in candidates for each position. No one shall be nominated who has not consented to stand for election and to serve if elected. It shall be the responsibility of the nominating committee to obtain this consent. The nominating committee shall solicit from DAVI members and affiliated organizations suggestions and recommendations regarding nominations. The nominating committee shall also prepare a brief biographical sketch of each candidate indicating his professional experience.

Not later than December 1 following, the executive secretary shall send the official ballot and the biographical sketches to each DAVI member in good standing. These ballots shall be returned to the executive secretary not later than January 10 on which date they shall be counted. The person receiving the greatest number of votes for president-elect, the person receiving the greatest number of votes for vice-president, and the three persons receiving the greatest number of votes for delegates-at-large to the Board of Directors shall be considered elected. In case of a tie the Board of Directors shall determine by mail ballot the winner from those who share the tie. This balloting shall be conducted by the executive secretary.

Section 2: Each year no later than December 1 the president shall select three members of the Board of Directors who are not members of the Executive Committee (at least one of whom shall be a delegate-at-large) to serve as a committee to nominate four members of the Board of Directors to stand for election to the Executive Committee. No later than January 1 the executive secretary shall mail to each member of the Board of Directors a ballot listing the names of the four nominees. No person shall be nominated whose previous consent to serve has not been secured. These ballots are to be returned to the executive secretary not later than February 1 on which date they shall be counted. The two persons receiving the greatest number of votes shall be elected. In case of a tie the Executive Committee shall determine by mail ballot the winner from

(Continued on page 93)

Fusion or Coordination?

The fundamental issue is the type of member which our association should represent.

There are within the audio-visual and school library fields two major points of view. Some of the members in each field believe in the fusion or integration of the two fields. Others believe that the audio-visual and school library fields should be continued on an independent but cooperative and coordinated basis.

The position of the audio-visual integrationist is represented by the following statement from the report of the 1955 Lake Okoboji Conference: "*A minority of the group felt strongly that as a look to the future, individuals should be encouraged to develop the professional competencies necessary to apply all media and materials as they relate to the specific problems of instruction.*" Similarly, the position of the school library integrationist is presented in a statement in the October 1955 issue of the AASL's *School Libraries*, that "*School librarians are qualified to administer a center for instructional materials . . . they receive special training in analysis, educational evaluation, selection, organization, systematic distribution, and use of all the instructional materials a school requires.*"

In contrast to the integrationist point of view as described above, we have in both fields a large number who support continuation on an independent but cooperative and coordinated basis. The primary purpose of this article is to discuss the considerations in education which support the latter point of view.

1. These members are aware of the potential contributions of their respective fields to education and want to use any additional time or funds to improve the quality of their services. The needs and opportunities of each field are so great, they feel, that their responsibilities need to be concentrated.

2. Most members in both fields believe that the demand for specialists in instructional materials can best be met by strengthening present programs for the education of audio-visual supervisors and coordinators, and school librarians.

DAVI has published a directory of information on 50 institutions located in 26 states which offer a graduate program of professional and audio-visual education recommended by DAVI for certification. Correspondence with colleges indicates that this number will be increased to over 100 within the next five to seven years. Even this number will not meet the demand for audio-visual coordinators as state departments of education adopt regulations requiring that both elementary and secondary schools maintain audio-visual programs with qualified directors. Meeting the need for audio-visual coordinators will be made more difficult under an integrationist system where audio-visual courses are labeled "instructional materials" and highly competent audio-visualists are expected to know selection and use of school library books even though they have not had any training or experience in library science.

New Librarians Needed

Library leaders report that one librarian for each 500 pupils would require an additional 6000 high school librarians. Library leaders are now suggesting that many of the 130,000 elementary schools should have librarians. This immediate need must be squared with the fact that only 67 of the 334 departments of library science and library education institutions offer the recommended minimum of 24 semester hours of library science. Most of the institutions offering less than 24 semester hours have only one instructor in library science and limited instructional facilities. Many leaders in the library field realize that priority must be given to the strengthening and expansion of existing undergraduate and graduate programs for the education of school librarians.

3. Many of the leaders in both fields believe that students who are interested in obtaining training in both audio-visual and school library areas can obtain this training best by electing courses in both fields. This opportunity is now available in a number of the 50 institutions offering graduate programs in audio-visual education since most of these institutions also offer courses in library science. While a majority of faculty members in the audio-visual and library science fields in these institutions would prefer to continue their respective programs on an independent basis, they are happy to work with students interested in planning a combined program of studies.

4. Audio-visual directors and coordinators and school librarians in most situations are happy to work together as colleagues on a cooperative basis. Teachers and pupils, then, have the advantage of the specialized competencies of specially trained staff members. In a number of schools and colleges, the audio-visual center and the library may be housed in the same building and share clerical staff, office areas, and conference rooms. The school librarian and the audio-visual coordinator frequently cooperate in the development of a common card catalog of books, and other printed and audio-visual materials.

5. The matter of coordinating the audio-visual and school library programs is generally handled very easily in that they are usually coordinated by the superintendent on a school system basis and by the principal on a building level. In the cases of large programs, one person may be appointed to serve as a director of both the audio-visual and school library programs. This person is usually selected on the basis of demonstrated ability as a leader and administrator from among school staff members with training and successful experience as a principal, general supervisor, school librarian, or audio-visual coordinator. Many leaders in both the audio-visual and library fields believe that the background of training and experience of directors of combined programs will be about as diverse as the training and experience of college presidents and that it would be both unwise and impractical to attempt to design a training program for them.

Membership Is Factor

As has been indicated in this article, the question of the title of DAVI's official journal involves points of view concerning the type of member which DAVI should represent. If it is believed that DAVI's main concern should be with members representing the integrationist point of view, then the magazine should be called *Instructional Materials*. On the other hand, if it is believed that DAVI's primary purpose is to represent the type of member who will contribute to the effectiveness of learning experiences by providing leadership and assistance in the selection, production, and use of all types of audio-visual instructional materials, then DAVI's official magazine should be called *A-V Instructional Materials* just as the Department is called Department of Audio-Visual Instruction.

—L. C. Larson

Bloomington, Ind.

Fears Overspecialization

I would like to use this letter to convey several feelings and ideas. First of all, I should like to congratulate the editor and the Interim Editorial Committee for their fine work in publishing INSTRUCTIONAL MATERIALS, and to commend the choice of content, format, and title.

I should like to comment specifically on the title because of my understanding of the situation in Tennessee and similar areas.

The vast majority of systems and schools in Tennessee are not, and will not be for some time to come, able financially to employ an audio-visual specialist. A member of the superintendent's central office staff is usually charged with administering the free textbook program, the library program, the system's instructional materials center, and the audio-visual program. He also assists with the curriculum materials development program. Persons in this capacity need a magazine and an organization to help them do their jobs. INSTRUCTIONAL MATERIALS looks promising. I hope DAVI will not become too specialized for this type of service.

A. MONTGOMERY JOHNSTON

Knoxville, Tenn.

Sees Harm in Merger

The manifesto appearing in *The School Libraries* (October 15, 1955) proposed that librarians take over certain distributive functions of the AV program and "delegate" the more exacting ones to audio-visual assistants.

It seems to me that in adopting the title, INSTRUCTIONAL MATERIALS, DAVI has regrettably given to many an equally misleading impression of jurisdictional imperialism. What is needed apparently is a meeting between DAVI and AASL top officials (or perhaps NEA and ALA), to rule against activities which might be construed as raiding—or which might otherwise be injurious to customary high mutual regard.

From the audio-visual point of view I believe it would be destructive to merge audio-visual and library functions in the work of a single person, even with individual schools. Yet this is a serious likelihood if "instructional materials" programs are given more emphasis than clarification.

A great danger in the present discussion and the casual use of the instructional materials center label is that in future planning it may be seized upon by economy-at-all-costs administrators as a cut-rate approach with a high-flown title. Those of us who have worked for decades in these fields will recognize how tempting this deception is.

The inescapable fact is that the audio-visual and library fields are and should be separate specializations, not because there are not enough people of one kind to try to do both jobs, but because the work and qualifications are and will continue to be vitally different. Work with electronic equipment involves different kinds of training, experience, aptitude, and sometimes even physique from those required in the appraisal, use, and maintenance of books and periodicals. Teacher-training in audio-visual work necessitates several years of full-fledged classroom teaching. The audio-visual service has been and is primarily for teachers, and is in that sense more comparable to textbook service than to library work, which primarily deals with individual pupils.

The second consideration which bars the merger of the audio-visual and

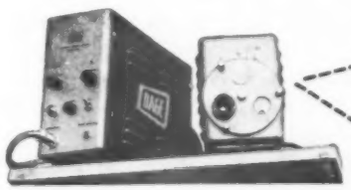
(Continued on page 93)

DAGE TV AT WORK

HOW KANSAS STATE TEACHERS COLLEGE USES TELEVISION AS A TEACHING TOOL

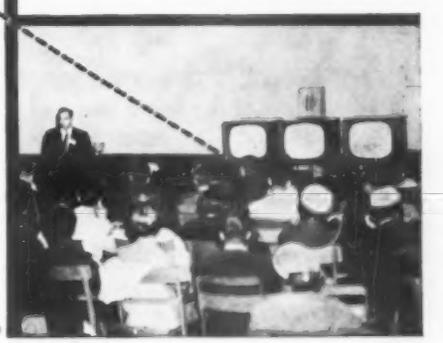
"The possibilities appear unlimited," says Dr. Rees H. Hughes, president, Kansas State Teachers College, Pittsburg, Kansas, and president-elect of the American Association of Colleges for Teacher Education. Dage TV has been used at Pittsburg in teacher-training and will be widely field-tested in audio-visual education. These are some of the uses:

- Transmitting Class and Laboratory Demonstrations from a Central Point to Class rooms.
- Eliminating Mass Assemblies by Televising Special Events to Students in Class.
- Permitting Students of Teaching Methods to Study Classes in Action.



- Dramatizing Information Presented to Students.
- Eliminating Need for Duplicate Equipment, Files, Films and Slides.

WRITE FOR COMPLETE INFORMATION. DEPT. 105



DAGE TELEVISION DIVISION
MICHIGAN CITY, INDIANA
'A Thompson Product'

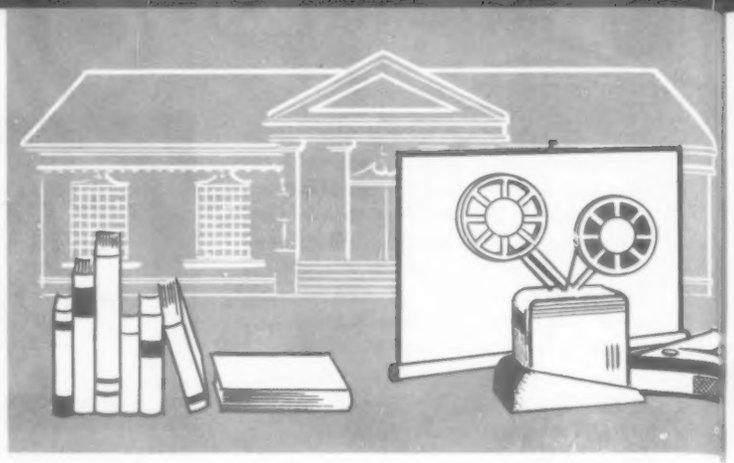
In Canada, dist. by Rogers Majestic Electronics, Ltd., Toronto

DEPARTMENTS

News and Views

Materials and Equipment

Looking at New Literature



SPEAKING OF PEOPLE AND PLACES . . .

WILLIAM GNAEDINGER, director of the audio-visual center at Washington State College, has received a unique "hands across the sea" honor. He has been presented a membership card bearing Serial No. 1 by the new national audio-visual association of Norway which met for its organizational meeting in Olso early in February. The honor was given in recognition of the part Gnaedinger played in promoting establishment of the organization during his recent stay as Fulbright lecturer at the University of Oslo.

PEARL ROSSER, who has been executive director of the Department of Audio-Visual and Broadcast Education for the National Council of Churches of Christ in the United States, has accepted a new position as executive secretary of the Department of Radio and Television of the Church Federation of Greater Chicago.

NORMAN MOORE, director of the Reynolds audio-visual division of the Rochester public library, has just received the official March of Time radio archives. This collection of outstanding radio programs represents a great slice of current American history.

Under the direction of ELLIOTT KONE the audio-visual section of Yale University is producing a documentary film on the functions of the university library. HERBERT SOBLE, graduate of the cinema department of the University of Southern California, is making the film.

ANN HYER, associate executive secretary of DAVI, represented the national staff at the AERT conference and the Twenty-Sixth Institute for Education by Radio-Television. DAVI members present found especially profitable and inspiring the session on teaching by closed circuit television, the addresses by CHARLES A. SIEPMANN and HAROLD D. LASSWELL on the role of "serious" broadcasting and the socio-political situation as a factor, and a report, "Impressions Behind the Iron Curtain," by EUGENE KING, program manager of The Voice of America.

WALTER WITTICH, director of the bureau of audio-visual instruction at the University of Wisconsin, and DAVI president for the past year, received special recognition for his year of service from his own Wisconsin Department of Audio-Visual Instruction. It consisted of a bouquet of flowers, a box of aspirin, and good wishes for the future!

MRS. A. M. SCHAMMINGER, director of the Austro-American Institute of Education, was a recent visitor at DAVI headquarters. One of Mrs. Schämminger's major interests is gathering information on language laboratories and the use of AV materials in teaching foreign languages.

LOUISE S. WALKER, supervisor of audio-visual education in the Montgomery county schools (Maryland), did a visualized article on Montgomery county for the February issue of *the Maryland Teacher*. If you want a thumbnail sketch of the county, see this article.

When W. C. MULLEN, vice-president of the Audio-Visual Coordinators of Oklahoma, was selected as "Educator of the Week" to appear on TV Station KTEN March 6 he put his AV background to work. To illustrate what happens in the Wewoka schools he used a flannel board, flat pictures of school activities, and a tape recording made by students.

WILLIAM KING, audio-visual coordinator for New Jersey, reports that Bergen county in his state has just formed an audio-visual center. This makes a total of 17 out of 21 counties with centers. They serve more than 300 school districts through a cooperative program financed by local and state funds.

MARGARET JACKSON, president of the Eastern Massachusetts Branch of DAVI, returns shortly from a six-week stay in London where she received training in civil defense methods. She plans to work for a year with the Massachusetts civil defense organization.

The Universtiy of Rochester is producing a series of 13 television films on music appreciation. Directed by DON LYONS and narrated by HOWARD HANSEN of the Eastman School of Music, the series will feature the Rochester Philharmonic Orchestra.

DENNIS PETT of Indiana University has started his own film, filmstrip, and graphics production company as a part-time enterprise.

JOHN BORZA has succeeded the late LESLIE FRYE as director of audio-visual education for the Cleveland public schools.

ROBERT LUSK, director of educational services for the Automobile Manufacturers Association in Detroit, is the new president of the business-industry section of the National Science Teachers Association. Lusk will be awarded his doctorate in the field of audio-visual education at Wayne University this June.

HORACE C. HARTSELL, associate professor of education at Texas Technological College and president of TEXAVID, will join the staff of the audio-visual center at Michigan State University June 1.

STACY BRAGDON, director of audio-visual education and public relations for the Wellesley (Massachusetts) public schools, is new president of the Massachusetts Teachers Association.

DO YOU KNOW THAT . . .

THE AUDIO-VISUAL EDUCATION INDUSTRY gets from one and one-half to two per cent of its total income from foreign markets. This includes the sale of equipment and non-theatrical films. On the other hand, Hollywood got 50 per cent of its total income outside of continental United States last year. We can't help but wonder which are better ambassadors of good will throughout the world—Hollywood releases or educational films.

USE OF TELEVISION IN SCHOOLS will get especial attention in a Texas statewide study of educational personnel and facilities, according to Roy M. Hall, project coordinator. The University of Texas, where Hall is on the staff, has been contracted to coordinate the study by its sponsors, the Texas State Board of Education.

A NEW 16MM KODACHROME duplicating stock is announced by Eastman Kodak. The new film will produce an improved color print with better definition and reduced contrast and will also make possible improved quality of sound track, wider range, and more volume.

A LARGE AUTOMOBILE COMPANY spent about $5 million during 1955 on motion pictures, filmstrips, and audio-visual service and equipment.

Newly-available to Secondary School Teachers—

BUILDING A UNITED STATES OF EUROPE

The "building a United States of Europe" study unit is available at a cost of $1.00 to cover postage and handling by writing to:

A complete study unit especially designed for high school classroom use, describes the first federal government of Europe—the European community for Coal and Steel.

The Community is widely regarded as the first step towards a United States of Europe. However, the details of its structure and accomplishments are less well known to U.S. students studying foreign affairs.

Each Study Unit contains:

- *1 35 mm full-color filmstrip
- 1 LP narration record, 10 minute running time.
- 20 Illustrated study manuals (or amount as ordered)
- 2 Color wall maps: political and economic 39" x 45" and 29" x 31½"
- 20 Work maps (or amount as ordered) 11" x 14" (for assignment work)
- 1 Fact and Figures pamphlet
- 1 Teacher's Guide

(filmstrip to be returned after use. May be purchased for additional $1.50)

INFORMATION SERVICE

European Community for Coal and Steel

220 SOUTHERN BUILDING

WASHINGTON 5, D. C.

The newly formed AUDIO-VISUAL COMMISSION ON PUBLIC INFORMATION which represents leading national organizations in the audio-visual field will meet in Charlottesville, Va., May 25-26. Its chief purpose: to publicize audio-visual educational needs throughout the nation.

DAVI MEMBERS CAN GET COPIES of the recently published *Criteria for Business Sponsored Educational Films* at a special price of 75 cents. The regular price is $1. The publication is now in its second printing, according to John Flory of Eastman Kodak.

VOTING PROCEDURES, a 14-minute, sound, black-and-white film released by the audio-visual center at Indiana University, has received a Freedom Foundation award this year, according to an announcement from Valley Forge, Pa.

A RECENT ENDOWMENT at the University of Kansas will finance the training of a doctor as audio-visual specialist in the medical field. The gift was made by the Charles Pfizer Pharmaceutical Company.

TIME MARCHES ON . . .

The February 10, 1941 issue of *Reel News* published by the Washington State College Audio-Visual Center, lists a three-day conference in Spokane. Featured on the program for this meeting 15 years ago were V. C. Arnspiger, then of ERPI Classroom Films; Francis W. Noel, at that time director of audio-visual education at Santa Barbara; U. S. Burt, who was western representative for the NEA Visual Instruction Section Executive Committee; and Amo De Bernardis, then audio-visual supervisor, Portland, Ore.

Materials and Equipment

THE COVER PHOTO of the first issue of INSTRUCTIONAL MATERIALS inspired one reader to comment: "Isn't it wonderful that we have such variety of globes for teaching world size, shape, directions and locations."

Educators will be interested in two globes in production by a new concern, Geo-Physical Maps, Inc. (Chappaqua, N. Y.). A 12-inch relief model is made of pressure-molded rigid plastic and is lithographed in full color to show the natural coloring of the earth. Its price is comparable to other 12″ smooth surface maps.

More spectacular is an expensive six-foot globe cast as a rubber shell and weighing about 85 pounds. Its compressibility permits it to be taken through a standard door. Relief features are on a graduated scale of exaggeration ranging from 80x to 10x at the highest elevations; average vertical exaggeration factor is 40x. This six-foot model will soon be seen in conjunction with certain television programs produced by NBC.

The World at Hand

Among 3-D models from other manufacturers already used in schools to put the world at the students' fingertips are:

Cram's Markable-Kleenable series of 12″ and 16″ political, physical-political, simplified, slate-surface, and celestial globes. Many other models, some illustrated, in sizes of 7″, 8″, 10½″, 12″ and 16″. George F. Cram Co., 730 E. Washington St., Indianapolis 7.

Denoyer-Geppert Graded Globes—12″ beginners globe for primary; 12″ and 16″ simplified globes and 16″ and 20″ slate globes for intermediate; and 12″ and 16″ detailed models for advance levels. Denoyer-Geppert Co., 5235 Ravenswood Ave., Chicago 40.

Farquhar Transparent Globes—terrestial or celestial—in diameters varying from 6″ to 36″, with wide variety of surfaces, relationships, and uses. Farquhar Transparent Globes, 3724 Irving St., Philadelphia 4.

Hammond's 18″ inflatable, scratchproof international globe. No damage from handling or dropping. Authentic, colorful, precision-made. Three-ply plastic sphere, with stand. C. S. Hammond & Co., Maplewood, N. J.

A. J. Nystrom globes—physical and political. Slate surface, or markable in 12″ and 16″ models. 3333 Elston Ave., Chicago 18.

Rand McNally Graded Globes. Beginners 12″ globe for primary level, intermediate 12″ for middle or upper grades, and 16″ detailed globe for secondary and adult. 111 8th Ave., New York City.

Weber Costello Company. 12″ and 16″ globes. 12th & McKinley, Chicago Heights, Ill.

RECENT FILM RELEASES

From Encyclopaedia Britannica Films, 1125 Central Ave., Wilmette, Ill.:

Painting Clouds, 615 ft. in color. Secondary teachers and art students will be interested in ideas and techniques demonstrated by the water colorist, Eliot O'Hara. Fog, wind, and various types of cloud forms are discussed together with specific techniques the artist employs to obtain a variety of effects.

Crustaceans, 492 ft. in color. Biology and zoology classes at high school and college level will be able to study in appreciable detail five major types of crustaceans. Filmed in their natural habitat, their specialized physical variations and adaptation to environment are stressed. Animals studied are lobsters, barnacles, shrimp, crayfish and crabs.

Worms, 464 ft. in color. Leeches, earthworms, seaworms, clampworms, and fireworms are covered by this science film designed for high school and college use. Basic structure, special development, and patterns of behavior are analyzed. Use to mankind is also brought out in the text.

Gray Gull, the Hunter, 656 ft. in black and white only. Pictured here is the struggle between the gray robber gulls and the murres who nest on barren ledges high on the rocky cliffs of Stora Karla in the Baltic Sea. Survival is a grim and courageous pattern. Arne Lucksdorff, distinguished nature photographer, has captured the drama and beauty of this continuous conflict. Interest level extends from upper elementary school through adult groups.

The Bear and the Hunter, 388 ft. in black and white only. Photography by Arne Lucksdorff. Action takes place in Lapland in May against one of nature's most beautiful settings. Actors are an owl, a mouse, a bear, a hunter and his son, and their dog. As the story develops we find the hunter and the hunted reversing roles. Spectators from 9 to 69 will enjoy this adventure.

Learning About Your Nose, 326 ft. in color. Designed for upper elementary and junior high school use. The physiology of the nose and personal hygiene are well told through a variety of camera techniques including micro-photography animation and medical photography. Objective: better health habits.

From Sound on Film Productions, 2648 18th St., Sacramento 18, Calif.:

California Ring Necks, 450 ft. in color. Television rights obtainable. The Sacramento Valley furnishes a natural home for the California ringneck pheasant. The film shows how the State game farms maintain hatcheries and how conservation regulations are enforced. Recommended for sportsmen as well as educators.

California's Mother Lode, 720 ft. in color. TV rights obtainable. By plane and land the viewer re-creates the overland travels of the emigrant who answered the call of California gold. The passes, gold-producing streams, and early mining towns scattered along Highway 49 bring to life the names of Coloma, Bret Harte, Lola Montez, James Marshall and Mark Twain. The film gives new meaning to the gold rush country of California.

From Bailey Films, Inc., 6509 De Longpre Ave., Hollywood 28, Calif.:

Water Colors in Action, 400 ft. in color. In painting a landscape the artist reviews basic tools and their use. He shows wash technique, how color values are determined, per-

spective development, and the creation of shadow effects. The film has motivating power and will be of interest to beginning art students of junior high school age and up.

From Film Associates of California, 10521 Santa Monica Blvd., Los Angeles, 25:

Fossils Are Interesting, 400 ft. in color. The viewer is given a survey of the kinds of fossils that can be found, how to find them, and what they mean. Of especial interest to science teachers in elementary and junior high school.

Animal Habitats, 400 ft. in color. Shows how the native habitat is suited to the characteristics of different species. Varying conditions of life on the desert, tundra, forest, and prairie are matched to the physical needs of the desert rattlesnake, bighorn sheep, prairie dog, bear, and chipmunk. Good scientific information.

From Young America Films, Inc., 18 East 41st St., New York 17.

Wood Finishing, one reel black and white. Industrial arts teachers will find this film useful in demonstrating the materials and techniques of finishing wood surfaces. The film shows the preparation of surfaces; use of paints, stains, and fillers; and the application of lacquer, shellac, varnish, and other rub-on finishes. Final finishing with wax completes the demonstration.

How To Succeed in School, one reel, black and white. Upper-grade elementary and junior and senior high school students are furnished with seven pointers that will help them succeed and to be happy. Going to school is compared with the operation of a successful business. Guidance teachers and counselors will find this film useful for students entering junior or senior high school.

Previewing Filmstrips Is Absorbing Task

PERHAPS there are few tasks more time consuming than previewing sets of filmstrips. Skimming for content is almost impossible because the combination of content, organization, and photography captures the interest to the extent that the previewer finds himself ploughing through each strip one frame at a time, reading captions, maps, charts, and illustrations. This is a comment on the power of filmstrips to command and hold attention.

Listed below are some of the more interesting recently viewed.

From the Society of Visual Education, 1345 Diversay Parkway, Chicago 14:

THREE NEW SERIES on regional geography covering Living in Northwest Europe, Living in the Balkans and Southern and Southwestern Asia, and Living in Eastern and Southeastern Asia. Each series has four full color strips that cover one or more nations of that area in each filmstrip. Up-to-date photographs combine with excellent maps from Rand McNally to make each series authentic, and highly teachable. Strips run 50 to 69 frames. Sets, $19.50.

MATHEMATICS TEACHERS, grades 6 through 9, will enjoy a series of 7 filmstrips, Using and Understanding Numbers—Decimals and Measurements. Excellent color and graphics plus lucid explanations make the concepts presented easy to understand. Pupil response and problem-solving material appear abundantly in each filmstrip. Correlations are available for arithmetic texts of 12 major publishers. Ranges from 43 to 57 frames per strip. $35 for series.

JUNIOR HIGH GRADED WORD PHRASES is a series of 4 strips and manual that can be adapted for tachistoscope techniques. The filmstrips cover *Mathematics Miscellaneous Groups 1 and 2, Groups 3 and 4, Groups 5 and 6.* Accuracy of word interpretation and vocabulary building may be achieved through use of this material. Other similar sets of four cover *Social Studies, Science, Health* (two strips only), *English* (one strip) and *Geography* (one strip). Each is divided into two sections for controlled use. Price per set of four, $29.50.

From Eye Gate House, Inc., Long Island City, N. Y.:

COUNTRIES OF THE NEAR EAST, a series of 9 full color filmstrips, each averaging 36 frames (plus bonus

(Continued on page 94)

Major Cyrus W. Wood uses Blak-Ray black light to dramatize map studies at Occidental College.

BLACK LIGHT CAPTURES 70% MORE ATTENTION

Statistics now reveal that lectures and demonstrations presented in fluorescent black light get an average of 70 per cent more attention—and retention.

When used on a blackboard under room lighting, Blak-Ray chalks write white. Switch on a simple Blak-Ray ultra-violet lamp, and they burst into 3-dimensional life with fire-like radiance! Colors are as varied and intense as the rainbow. Lectures and demonstrations become "unforgettable events". Also available: fluorescent crayons, yarns, tempera colors, and inks.

For complete details, request "Visual-Aid Report" from—

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Distributors for Ultra-Violet Products, Inc., 5114 Walnut Grove Avenue, San Gabriel IM, California. Distributors in principal cities.

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- more durable
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AVR RATEOMETER, complete with study manual and carry-case carton $35.00

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FLASH-TACHMENT for converting a 2x2 filmstrip projector into classroom tachistoscope $5.00

YOU-MAKE-THEM, 2x2 SLIDES, with special pencil and manual $3.50

AUDIO VISUAL RESEARCH

Designers and Manufacturers of Specialized Audio-Visual Equipment

531 S. Plymouth Ct. Dept. IM65 Chicago 5

LOOKING AT *New Literature*

THE YEARBOOK of the Michigan Audio-Visual Association reported in the making in last month's INSTRUCTIONAL MATERIALS has been released.

In-Service Education in Audio-Visual Methods is the report of a survey in the Michigan public schools organized around ten types of in-service education—individual conferences, demonstrations, exhibits, newsletters and bulletins, workshops, open house observances, and work with building coordinators, principals, supervisors, and curriculum committees.

The summary of this work is not overly optimistic. A few school systems in Michigan are "exploring new and interesting kinds of in-service activities" but for the most part they rely on universities and colleges who cannot be expected to do the job alone. Insufficient released time for AV directors is a much noted deficiency.

Nor does the book offer simple solutions. According to it, an effective program is based on a combination of all ten types of in-service education cited above.

Edited by Marie McMahan, this is a clear presentation of a comprehensive survey.

Other books worth looking into are:

Children and the Language Arts, by Virgil E. Herrick and Leland B. Jacobs. Prentice-Hall, 70 5th Ave., New York 11, N. Y. 1955. 524 p. $5.50.

Among the many facets of this study, all of which are of concern to audio-visual directors and librarians, the descriptions of childrens' experiences in different areas of language such as reading, listening, and mass media of communication are of particular interest. Reviewed in *Progressive Education* 30:30; January 1956.

"Education on Display," by John Albert Hanson. *National Elementary Principal* 35: 34-35; February 1956.

The principal of an elementary school in Concord, Calif., describes the use of display techniques including exhibits, films, filmstrips and recordings. The purpose is to explain the specifics of instruction to parents in an effort to create a "solid basis of understanding between school and community."

* * * * * *

"Educational Television: An Interim Appraisal," by Charles Side Steinberg. *Journal of Educational Sociology* 29: 49-61; October 1955. Also *Education Digest* 21: 17-19; February 1956.

Charles Steinberg, associate director of public relations in charge of educational activities for Warner Brothers Pictures, discusses potentialities of educational television. Emphasizes belief that cooperation between existing television stations and educators is a better policy than waiting for educational television stations to materalize.

* * * * * *

Felt Boards for Teaching, by Charles H. Dent and Ernest F. Tiemann. Visual Instruction Bureau, University of Texas, Austin 12. 1955. 26 p. $1.

Here is a booklet full of ideas about the felt board. Attention is given to its construction, materials for use, tips on presentation and sources of materials. Teachers can use this pamphlet.

* * * * * *

The Illustration of Books, by David Bland. Pantheon Books, 333 6th Ave., New York 14, 1954. 160 p. $2.75.

This volume considers both the history and processes of illustration. While the book concentrates on the production of books for England, the chronological approach and the treatment of the important aspects of applying principles to book production will be of interest to all concerned with the illustrative arts. Reviewed in *Library Quarterly* 26: 74-75; January 1956.

* * * * * *

Lettering Techniques, by Martha F. Meeks. Visual Instruction Bureau, University of Texas, Austin 12. 1956. 33 p. $1.

Those who have not had formal instruction in the art of lettering will find this book especially designed for their use. The first part considers the uses of lettering, and its functions served through character, legibility and applied uses. The second section treats preparation: basic formation of letters, spacing, hand lettering, ready-cut letters, and mechanical lettering. Appended also are sources of materials and a bibliography for further study.

* * * * * *

"The Library as a Materials Center." Entire issue of *Junior Libraries* 2: 1-36; February 1956.

Continues current discussions of patterns for administering instructional materials. Varying viewpoints are represented. Some of the titles are: "The Public Library as a Materials Center," "Materials Centers and School Libraries Don't Mix" (by Irene Cypher, New York University), "A Policy for Indiana School Libraries," and "Reading Takes on New Meaning Against a Rich Variety of AV Experiences" (by Nancy Larrick, education director, Random House, Childrens Books).

* * * * * *

"The Teacher's Administrative Role," in *Principles of Elementary Education*, by Henry J. Otto and others. Rinehart and Co., 232 Madison Avenue, New York 16. 1955. 455 p. $5.

The management of instructional materials from the teacher's point of view is considered in Chapter 14, especially pages 386-90, wherein textbooks, library purchases, and instructional supplies are discussed.

Forum—Harm in Merger

(Continued from page 87)

library functions is that of load. The audio-visual job, as stated above, involves, when properly done, not only budgeting, procurement, cataloging, storage, distribution, and maintenance of different kinds of equipment and materials, but also production for special local needs, teacher-training, curriculum planning, and other functions. The librarian job involves not only work with selection of materials, but instruction and individual reading guidance of children, story-telling, browsing room services, and other tasks. To combine all these responsibilities in one person is intellectually dishonest. The obvious result would be that only the most pressing physical supply services would be rendered, degrading the kind of work now being done in both fields.

A commonly advanced argument is that teachers should be able to find all materials in one place. This has been extended into a plea for unified centers for all instructional materials under librarians. Actually, modern educational practice involves the operation of many materials centers of special types, which are often under specialized personnel.

As to physical housing, since the school library is chiefly a place for materials for individual pupils, and the audio-visual collection is almost exclusively a service to teachers, the two kinds of resources do not mix well. Present practice involves the flexible placement of resources within schools, as needs dictate—in classrooms, department offices, closets, the central library, and audio-visual collections.

In our own New York City system, materials centers are now operated in varied patterns of location and jurisdiction by curriculum assistants and specialists in reading, health education, guidance, and other fields.

Patterns Painfully Wrought

There may come a time when curriculum specializations may be drawn differently, but patterns of professional preparation and experience have been painfully won and should not be scrambled with unpredictable results. The real need is to strengthen both the library schools and the schools of education to turn out better prepared personnel for the two exacting jobs. Let us avoid a competitive contest, political or otherwise, and concentrate on improving our competencies and services in our own fields. The area of instructional materials is indeed a broad one for curriculum development, in which there is not only room but need for the established large fields.

There is, of course, an understandable need for coordination of these programs. This occurs normally in the process of curriculum development and preparation of courses of study. It also occurs in some large systems by the designation of qualified personnel as coordinators or directors of instructional materials. As to eligibility for such high level supervisory positions, it may be assumed that properly objective certification, examination, and merit system procedures are ultimately the only ones consonant with the dignity and growth of the profession.

—Edward G. Bernard
New York, N. Y.

What Is DAVI'S Role?

The present controversy over the title of DAVI's official publication really goes to the foundations of the organization. It still hasn't made up its mind whether it is an administrative body or an association representing all levels of our educational system. Is it to build an audio-visual wall around itself to keep others out and thereby shut itself in, or is to to open doors to any one wishing to work with it?

To me, audio-visual instruction goes beyond the concept which the White House Conference seemed to indicate. For me, it embraces a comprehensive philosophy of education. But it does more than that. It is action research personified. It provides the means by which we can make education more realistic. The focal point is the classroom, and the administrative unit is the public school. Most schools, especially elementary schools, cannot afford two instructional materials persons: audio-visual and library. We need another answer.

The essence of a materials center is accessibility and control of its posses-

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Constitution Revision

(Continued from page 85)

those who share in the tie. This balloting shall be conducted by the executive secretary.

Section 2: At the annual winter meeting the president shall select three members of the Board of Directors who are not members of the Executive Committee (at least one of whom shall be a delegate-at-large) to serve as a committee to nominate four members of the Board of Directors to stand for election to the Executive Committee. No person shall be nominated whose previous consent to serve has not been secured. At a Board of Directors meeting during the annual winter meeting, each member of the Board shall vote by secret ballot for two of the four nominees. The two persons receiving the greatest number of votes shall be elected. In case of a tie, the Board shall cast another vote.

Section 3: Newly elected officers, delegates-at-large to the Board of Directors, and members of the Executive Committee shall assume their responsibilities immediately after the close of the annual winter meeting. Should there be no winter meeting, their terms shall begin on March 1 following their selection.

Article IX—Committees:

The committees of the Department of Audio-Visual Instruction shall consist of a resolutions committee, an auditing committee, and such other committees as may be appointed from time to time by the president with the approval of the Executive Committee.

Article X—Meetings:

The Department shall hold two business meetings each year, one during the summer and the other during the school year. The time and place of these meetings shall be determined by the Board of Directors one year in advance, and shall be announced to the membership as soon as possible thereafter.

Article XI—Official Journal:

The Department shall have an official journal. The current arrangement for this publication shall continue until changed by a two-thirds majority of the active members who vote on a special ballot prepared for this purpose, provided the Board of Directors, after due consideration, recommends to the members that such action be taken. A decision to change the official journal shall not become effective earlier than one year from the date of such election.

Article XI—Official Journal:

The Department shall have an official journal. The establishment of the journal and the general policies governing its publication shall be the responsibility of the Board of Directors. The immediate supervision of the publication of the journal shall be the responsibility of the Executive Committee.

Article XII—Amendments:

This Constitution may be amended (1) at any meeting of the Department for transaction of official business by a vote of two-thirds of the active members present; or

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Materials and Equipment

(Continued from page 90)

strip). A manual accompanies each series giving an overview and suggested activities. Photographs and maps are excellent. Titles in the series are *Turkey, Saudi-Arabia, Syria, Lebanon, Jordan, Israel, Iran,* and *Egypt* (Parts I and II). Bonus filmstrip is *Preventing Accidents at Home.*

EARTH HOME OF MAN, a filmstrip of 25-30 frames each plus bonus filmstrip is a successful attempt to design material for the elementary level. Much stress is given to the forces of nature, typical geographical regions and forms, and the effect of climate and weather on human existence. Earth's place in the solar system and man's activities and occupations are well interpreted through excellent diagrams and illustrations.

From E. W. Barrett and Associates, 350 5th Ave., New York 1:

YOUR TRIP THROUGH THE SUEZ CANAL has 65 full color frames. No captions included but filmstrip and manual explain in detail the history and present-day operations of the Suez Canal. Good maps help fix locations and relationships.

From Jam Handy Organization, 230 N. Michigan Ave. Chicago 1:

Elementary children will enjoy the excellent series of six filmstrips, Our Neighborhood Helpers. With from 28 to 30 colored frames in each filmstrip they cover *The Mailman, The Policeman, The Fireman, The Grocer, The Milkman* and *The Librarian.* Photos are appealing and up-to-date.

GUIDANCE DISCUSSION SERIES—this set of seven colored filmstrips has no pat answers but is designed to stimulate thoughtful discussion among teenagers on *You and Your Growth, Your Feelings, Using Your Time and Ability, Making Friends, Your Family and You, Looking Ahead to High School* and *Dating Daze.* Average length of each strip 35 frames.

From Young America Films, 18 E. 41st St., New York 17:

AMERICAN SCIENTIST SERIES, a set of six full color filmstrips suitable for elementary and secondary levels. Each traces the life story of a famous American scientist and his influence on present-day events. Scientists portrayed are Bell, Burbank, Edison, McCormick, Morse and Whitney. Set, $30; 37-50 frames per strip.

AMERICAN AUTHORS, a set of six color filmstrips including *Louisa May Alcott, Samuel Clemens, Henry Wadsworth Longfellow, Washington Irving, Edgar Allen Poe,* and *John Greenleaf Whittier.* $30 for set.

AMERICAN LEADERS SERIES, a new set of color filmstrips for middle grades through high school. Produced in original drawings, each strip traces the life of a renowned American from early childhood on, pointing out the events and personalities that influenced him, and explaining his contributions to American civilization. Titles are *Jane Addams, Susan B. Anthony, Benjamin Franklin, Thomas Jefferson, Horace Mann, Roger Williams.* Average length, 42 frames; $30 for set of six.

WORD STUDY SERIES. Students interested in word derivations, word building, synonyms, antonyms, homonyms, and changes in the meanings of words will find these six colored filmstrips an excellent investment.

PRINCIPLES OF BIOLOGY, PART II —a series of six black and white filmstrips appropriate for high school or college use. Topics are *Effect of Environment, Heredity and Environment, Factors in Survival, Factors in Health and Disease, Origins of Living Things,* and *Descent with Change.* Classes in psychology, social hygiene, and genetics will find value in these.

NETHERLANDS STORY

Meindert DeJong's book, *The Wheel on the School,* 1955 winner of the John Newbery Medal "for the most distinguished contribution to American literature for children" has been dramatized on record. With adherence to authentic fact, sound, and story, the little Dutch village of Shora is recreated.

First in the proposed series of story book dramatizations, *The Wheel on the School* is especially suited to library programs and school classrooms. Teaching aids supplied at no extra cost include lesson plan aids for study programs and complete classwork suggestions for two full sessions of listening and discussion. Resource materials cover the history, geography, nature and bird lore of the Netherlands. Background music by the Amsterdam Concertgebouw Orchestra. A 12″ high fidelity unbreakable 33⅓ rpm record, $5.95. Newbery Award Records, 221 4th Ave., New York 3.

TV SERIES WINS AWARD

See How They Grow, an educational television series sponsored jointly by the California Congress of Parents and Teachers and the Office of the Los Angeles County Superintendent of Schools, was selected by the George Foster Peabody Awards Committee of Southern California to receive the 1956 "Little" Peabody Award. This is an award given to local programs which contribute significantly to the public interest. The 13-week series was released over Station KCOP as a public service feature.

Based on the McGraw-Hill Adolescent Development films, each program presented a short film and brief live discussion by two educational psychologists, Richard Harsh and Harold Reed, consultants to the Division of Research and Guidance of the office of the Los Angeles County Superintendent of Schools. Scholarship, understanding adolescent behavior, meeting adolescent needs, and other problems were discussed for the benefit of parents. Dick Garton, KCOP staff announcer and program moderator, added much to the series.

Guides to accompany each telecast were prepared for the study groups by Sybil Richardson, Division of Research and Guidance and Barbara Byington, consultant, Division of Audio-Visual Education. They include, among other things, easy discussion techniques for leaders of the viewing groups to follow. The Los Angeles county superintendent's office will make copies available for duplication to other PTA districts interested in a parent-education project of this nature.

The films used were made available through the courtesy of the Test-Film Department of McGraw-Hill Book Company, New York. These and similar films can be had for release over TV stations with their permission.

—HELEN RACHFORD

AV Director,
Los Angeles County Schools

Forum—DAVI's Role

(Continued from page 93)

sions. Part of the obstacle to effective rendition of instructional materials services in the past has been the necessity at the school level for processing (classifying, cataloging, lacquering, labeling, and book pocket installation) which gives order to a collection. Processing is essential. A growing number of educators believe that this should be done at the time the materials are produced (or in a processing center) and that materials should come to the school's instructional materials center ready, or nearly so, to go on the shelves.

An instructional materials person should be basically a good teacher, able to go into a school and organize all kinds of materials and equipment so that they will be available to all teachers on a professional consultant basis. This does not preclude specialization. The fundamental courses needed by the school materials person can and should be devised as the foundation upon which future specialization will be built. Such an approach parallels the present thinking of those colleges and universities which give all students two years of orientation. It also parallels the thinking of many of the state certification agencies.

The real specialization for any area of materials — printed, projected, or otherwise—should come at the graduate level. At that level it parallels the specialization required for administrative or supervisory positions. Consequently, where any individual goes ultimately would be a matter of personal choice. But the starting point is the program in the individual school which every instructional materials person needs to understand whether he is audio-visual (so-called), library, graphics, materials production, or what have you. What happens in the classroom to provide effective experiences for our boys and girls should be the measure of us all. —F. Edgar Lane

Miami, Fla.

Materials Are Incidental

The purpose of a name is to identify —that is, to distinguish its wearer from all others. Clarity of identification becomes all the more important where two names threaten confusion because of contiguity or overlapping, as in the present controversy over "audio-visual education" and "instructional materials." Some instructional materials are certainly audio-visual in character; some aspects of audio-visual communication involve instructional materials. But the two are not identical except in a very small segment of our broad field where they have become lumped together as a matter of administrative convenience.

Were our "materialists" to prevail, there would seem to be little reason why the librarians should not take full jurisdiction over the greater part of DAVI's field, certainly in the NEA structure; the projectors and heavier units presumably would be left in charge of the school janitors' organization.

Audio-visual education, whatever its semantical ill repute, is today the accepted name of a basic sensory-realist philosophy of communication and learning. Its materials are incidental to its philosophy and techniques. Its "identification with the improvement of instruction" goes back far beyond "the past two decades" mentioned by Dr. Cross.

It is understandable that we see the world through our own personal spectacles. But it is imperative that, as members of a many-splendored audio-visual community, we transcend our limited individual truth and share instead the broader common truths of our community.

The importance of DAVI-NEA is measured not in the administrative prestige of its individual members but in its capacity to strengthen the audio-visual idea in its varied and interrelated fields of application—classroom, research, communication, commerce, industry, government, recreation, administration, and distribution and production of instructional materials. The materials are important, true, but only as a means, not as an all-encompassing end. Let us not, in DAVI, lose sight of our common ends, or of our long, honorable history of struggle together for those ends.

—William F. Kruse

Ingleside, Ill.

Photo Credits

Page 68 Courtesy William E. Marshall, Exhibits Designer, Ohio State Museum

70, 71 Courtesy Audio-Visual Department, Syracuse University and American Museum of Natural History, New York City

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Constitution Revision

(Continued from page 93)

(2) by a mail vote of two-thirds of the active members who vote; provided, in either case, that the proposed amendment has been submitted in writing to the executive secretary by (a) the president of an affiliated organization or (b) petition signed by 25 active members of the Department, at least six months before the date of the meeting or the taking of the mail ballot, and provided that notice of the proposed amendment has been given in the official publication at least three months before the date of the meeting or the taking of the mail ballot. It shall be the duty of the executive secretary to see that this notice is given.

Article XII—Amendments:

This Constitution may be amended (1) at any official business meeting of the Department by a vote of two-thirds of the active members present; or (2) by a mail vote by a two-thirds majority of the active members who vote; provided, in either case, that the proposed amendment has been submitted in writing to the executive secretary through a petition signed by 25 active members in good standing of the Department at least four months before the date of the meeting or the taking of the mail ballot, and provided that notice of the proposed amendment has been given to all active members at least two months before the date of the meeting or the taking of the mail ballot. It shall be the duty of the executive secretary to see that this notice is given.

Article XIII—By-Laws:

Details of the activities of the Department shall be regulated by the By-Laws. The By-Laws may be amended (1) at any meeting of the Department for the transaction of official business by a majority vote of the active members present; or (2) by a mail vote of the majority of the active members voting; provided, in either case, that notice of the proposed change has been submitted in writing to the executive secretary by (a) the president of an affiliated organization or (b) petition signed by 25 active members of the Department, at least six months before the date of the meeting or the taking of the mail ballot, and provided that notice of the proposed change has been given in the official publication at least three months before the date of the meeting or the taking of the mail ballot. It shall be the duty of the executive secretary to see that this notice is given.

Article XIII—By-Laws:

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By-Laws

Article I—Membership:

Section 1: There shall be two types of membership:

A. Active membership. Active members of the National Education Association are eligible for active membership in the Department of Audio-Visual Instruction. Active members are entitled to vote and to hold office.

B. Publication Subcription membership. Individuals who are not members of the National Education Association are eligible for publication subscription membership. Such members are not eligible to vote or to hold office.

Section 1: There shall be three types of memberships.

A. Active Membership. Active membership in DAVI is limited to members of the National Education Association. Active members only are entitled to vote and/or to hold office. The privileges of active membership are extended only during those periods for which the current annual membership fee has been paid.

B. Associate membership. Individuals who are not members of the NEA are eligible for associate membership in the DAVI. Associate members are eligible for all the rights and privileges of active membership except that of voting and/or holding office.

C. Service membership. Individuals and/or institutions, organizations, governmental agencies, and business firms are eligible for service membership in DAVI. Service members are entitled to all the rights and privileges of active membership, except that of voting and holding office.

Section 2: Dues:

A. The annual fee for active and publication subscription memberships shall be determined by the Board of Directors.

B. This fee includes a year's subscription to the official publication, copies of all official reports and bulletins and such other services as may be available from the national office.

Section 2: Dues:

A. The annual fee for membership in DAVI shall be determined by the Board of Directors.

B. Such fees shall entitle all members to copies of all official reports of business meetings and such other services as may be designated by a majority vote of the Board of Directors.

Article II—Credentials:

Active members may be required at any meeting to produce their membership cards or to be certified by the executive secretary. Those who are not active members will not be permitted to participate in the business of the Department.

Article II—Credentials:

Active members may be required at any meeting of DAVI or upon occasion of balloting to submit evidence of their membership or to be certified by the executive secretary. Those who are not active members will not participate in the business of the Department.

Article III—Duties of the Officers:

Section 1: The president of the Department shall be the executive head of the organization; shall preside at all business meetings; and shall carry out the instructions of the Executive Committee and the Board of Directors.

Section 2: In the absence of the president, **during his term of office,** the vice-president shall assume the duties of the president; futher delegates of authority shall be determined by the Board of Directors.

Section 3: The executive secretary, working under the supervision of the president, shall endeavor to carry out the policies formulated by the Board of Directors and to perform such other duties as are determined by the Executive Committee.

Article IV—Quorum:

Section 1: Twenty-five active members of the Department shall constitute a quorum for the transaction of business. Nine members of the Board of Directors shall constitute a quorum of that body. Five members of the Executive Committee shall constitute a quorum of that body. A majority vote of the members present at meetings of the Department, Board of Directors, and the Executive Committee shall be a deciding vote. The executive secretary does not have the right to vote in the decisions of either the Board of Directors or the Executive Committee.

Section 2: In the absence of a quorum any body may meet to transact business with its decisions subject to ratification by a two-thirds majority of the members who vote on a subsequent mail ballot.

Section 3: If it is impossible or impractical to hold meetings of the Board of Directors or the Executive Committee, a mail ballot may be employed to transact business. In such instances a majority of the members of the Board of Directors (or of the Executive Committee) shall constitute a deciding vote.

Article V—Gifts:

The organization through its Executive Committee may accept gifts provided that in the judgment of the Board of Directors the acceptance of these gifts does not prejudice the character and purposes of the organization.

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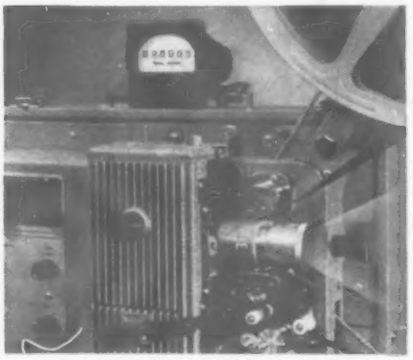

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